A PLAIN INTRODUCTION TO THE Art of Physick.

CONTAINING

The Fundamentals,

And Necessary

Preliminaries to Practice,

Whereby the Reading of Practical Authors will be render'd easie and intelligible to the Young Student.

To which is added,

The *Materia Medica* contracted.

And Alphabetical Tables of the Vertues of Roots, Barks, Woods, Herbs, Flowers, Seeds, Fruits, Juices and Gums, of Animals and things taken from them, of Minerals, *&c.*

Also a Collection of choice Medicines Chymical and Galenical.

Together with

A different way of making the most celebrated Compositions in the Apothecaries Shops.

By J. Pechey *of the Col. of Physicians in* London.

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MVSEVM
BRITAN
NICVM

4 K

THE PREFACE.

THE following Treatise, being an Introduction to the Art of Physick, I have, in the first Part, collected from the best Institutions, the Fundamentals of Physick, and have spoken briefly of Elements, Temperaments, Qualities, Sexes, Ages, and the various Temperaments of them, and of native Heat, and of Humours, *viz.* Blood, Flegm, Choler, Melancholy, Chyle: Also of natural excrementitious Humours, as Milk, Seed, menstruous Blood, yellow Choler, Serum, the Humour of the Stomach, Spittle, pancreatic Juice, Lympha, and Slime of the Guts; also of Parts in general, of a Faculty in general, of Action in general, of the internal and external Senses, of animal Motion, of the Pulse, Circulation of the Blood, Respiration,

Chylification, Sanguification, the periſtaltick Motion of the Guts, Generation, Nutrition, of things non-natural in general, as of Air, and the like. But I have treated more largely of Meat and Drink, becauſe they are of great Importance with reſpect to the Preſervation of Health. I have alſo treated briefly of Sleep and Watching, of Motion and Reſt, and of the Non-naturals, and of things contrary to Nature, of Signs, a Criſis, and of Urine. And to conclude this Part, I have treated of Gliſters, Vomits, Purges, Bleeding, Leeches, Baths, Frictions, Ligatures, actual and potential Cauteries, Cupping-Glaſſes, and Iſſues; of Phyſical Weights and Meaſures, and the way of compoſing the various Forms of Medicines.

The ſecond Part, which I call, *Materia Medica contracted*, was chiefly collected from *Etmuller* and *Marggravius*.

Laſtly, I have added, *Marggrav*'s Shop-Compoſitions, and a Collection of ſuch Chymical Medicines as I judg moſt uſeful.

J. PECHEY.

From the Angel *and* Crown *in* Baſing-Lane, London, June 24, 1697.

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A Plain and Short

INTRODUCTION

TO THE

Art of Physick.

CONTAINING

The Fundamentals,

And Necessary

Preliminaries to Practice.

CHAP. I.

Of Medicine in general.

PHysick, both upon the account of its object, and the necessity of it, is a most Noble Art.

It wholly consists of Practice; for all the parts of it are directed to Healing: And therefore it is an Art, and not a Science; the end whereof is Contemplation: And consequently, Treatises that are made up of Hypotheses, or Suppositions, belong rather to Phylosophy than Physick.

But it muſt be acknowledged, that there are ſome Diſeaſes incurable, therefore out of the reach of Phyſick; yet it is neceſſary to treat of them, that they may be known as ſuch, and foretold, that the Art may not be diſgraced.

It's ſaid to be Conjectural only, by reaſon of him that exerciſeth it, who can only gueſs at Diſeaſes and their Cauſes, the Quantity and Virtue of Medicines, and the particular Proprieties of the Body; for it has as much certainty in it as many other Arts; and to ſpeak the Truth, what Certainty is there, beſides the firſt Truths, and Matters of Faith.

It is commonly divided into five parts, *viz.* Phyſiology, that Treats of Natural Things: Hygiene, that Treats of Things non-natural, or Things neceſſary for the preſervation of Health; but yet ſometimes hurting it: Pathology, that Treats of Things contrary to Nature: Semeiotice, that ſhews the Signs of Things contrary to Nature: Therapeutice, that Treats of the general way of Cure, by Chyrurgery, Pharmacy, and Diet.

But Phyſiology does not properly belong to Phyſick, and therefore ought not to be accounted a part of it; yet becauſe it is uſually propoſed in Treatiſes of this kind, I will briefly do ſo.

Things that are called Natural are ſeven, *viz.* Elements, Temperaments, Humours, Spirits, Parts, Faculties, Actions; and among theſe, are to be reckoned ſome other things which are treated of in Phyſiology, as Age, Sex, and the like.

Elements are the moſt Simple Bodies, of which all other Bodies are firſt compoſed, and at laſt diſſolved. The union or conjunction of the Elements in the Body is called mixture; and a Body made up of the Elements, is called mixed.

The Elements are Four, *viz.* Earth, Water, Air and Fire. The Chymiſts add Salt, Sulphur, and Mercury,

Mercury, tho' improperly; for in some Bodies, for instance, Gold, burnt Talc, Glass, you cannot find either of the three; and in other mixt Bodies you may find more, as in the Humane Blood, Flegm, Salt, Oyl, Spirit and Earth; and if we should allow that Salt, Sulphur and Mercury may be drawn from some Bodies by the force of the Fire, it does not therefore follow, that they were in them before as first Principles; for perhaps they were produced in them by the Fire: Moreover, they are not perfectly Simple Bodies.

Temperament in general, is a convenient proportion of the Elements among themselves, or is a symetrical proportion of the Qualities.

A Quality is a certain disposition of insensible Particles, constituting sensible Parts; it is divided into First and Second. These Four are called the first, Heat, Cold, Moisture, Dryness; and that which exceeds the rest, denominates the Temperament.

The first Quality among Physicians is termed Actual and Potential; Actual, which is perceived immediately by touching, as Heat in Fire, Coldness in Water, and the like. It's said Potential, when it is not immediately perceived by touching, as Heat in Pepper, Coldness in Lettice.

The second Qualities are Colours, Sounds, Smells, Tasts, Gravity, Levity, Hardness, Softness, Smoothness, Roughness, Rarity, Density, and the like.

An equal Temperament with respect to weight, consists in an exact mixture of all the first Qualities. An equal Temperament with respect to Justice, as they term it, is improperly called equal; for it's such a proportion of the first Qualities as the Nature of the Mixture requires, whether they are in an equal degree or not.

Temperament is divided into Partial and Total. A Partial Temperament is that which is allotted to

every part; as the temperament of the Brain, Heart, or the like. A Temperament that is called Total is aſcribed to the whole Mixture, and is made up of ſuch as are partial, as the Temperament of this or that Man.

Temperament is alſo divided into innate and acquired. The innate Temperament is that which naturally belongs to a Man; the acquired is that which comes in the courſe of years, by reaſon of things non-natural, or contrary to Nature.

All the Parts of the Body, according to themſelves are hot and moiſt; yet with reſpect one to another, ſome are ſaid to be hot, cold, moiſt and dry. The Heart, Blood, Spirits, Arteries, Veins, Lungs, Spleen, Liver, are counted hot; but the Heart is reckoned the hotteſt.

Parts that are counted Cold, are the Bones, Cartilages, Tendons, Membranes, Ligaments, Spinal Marrow, and the like.

The moiſt parts, are the Blood and other Humours, the Brain, and Spinal Marrow.

The dry parts are the Bones, the Cartilages, Tendons, Ligaments, Heart, Lungs, Nails, Hair.

The ſigns of a hot and dry Temperament of the whole, are a quick and hard Pulſe, a dry habit of the Body, a brown Complexion, criſped Hair, of a brown or black Colour; for Heat feeds on the moiſture of the Body, melts the Fat, and drys up the Humours. The Appetite and Digeſtion are ſmall, there is a proneneſs to Anger, the Sleep is ſhort and diſturbed by reaſon of the heat of the Spirits; Venery is exceſſive, by reaſon of the Acrimony of the Seed; the Wit is Sharp, and the Body Active, becauſe the Spirits are pure. The *Italians* and *Spaniards* are ſo Conſtituted.

The ſigns of an hot and moiſt Temperament, are a large Pulſe, but not frequent nor hard; a Fat habit

bit of the Body, but not very Fat; becauſe that proceeds from Frigidity and Moiſture. The Complexion is florid and clear; the Hairs are ſometimes curled, and ſometimes not, and not very Black; the Appetite and Digeſtion are pretty good; the Sleep moderate and quiet, the Mind chearful; and Venery moderate.

The ſigns of a Cold and Moiſt Temperament are, a ſmall and ſoft Pulſe, a white and ſmooth Skin, a ſoft and fat habit of Body, the Hair Yellow, and moſt commonly ſtrait, the Appetite great, and the Digeſtion good; the Sleep very much, a drowſie Diſpoſition, Wit ſmall, an unfitneſs for Motion, Venery ſmall. And this is the Temperament of moſt of the *Northern* People.

The ſigns of a Cold and Dry Temperament are, a ſmall Pulſe, and ſomewhat hard; the Skin ſomewhat rough, the habit of the Body dry, the Hair thin, Appetite and Digeſtion ſmall, Sleep ſhorter than in the Cold and Moiſt Temperament, little or no inclination to Venery.

But it is to be noted, that you muſt not expect all theſe ſigns preciſely in theſe four Temperaments, yet there ought to be moſt of them; and according to the number of them, you muſt judge of the exceſs in this or that Quality.

CHAP. II.

Of the Sexes, Ages, and the various Temperaments of them.

ACcording to the diverſity of Sex and Age, the Temperament is alſo divers.

Sexes differ according to the different Conformation and Temper of the Genital Parts,

Sex is twofold, Maſculine and Feminine. The former is moſt commonly hotter than the latter; which appears *cæteris paribus*, by the Pulſe, that are larger and more frequent, by the habit of the Body, which is dryer, by the greater firmneſs of the Parts, by the Actions that are ſtronger and more perfect, by a greater diſpoſition to a Fever, and a leſs quantity of Crudities; all which, as they proceed from a greater heat, ſo they vindicate it. Nor does Womens growing ſooner, contradict what has bin ſaid, becauſe this is rather to be aſcribed to the ſoftneſs and ductility of the Parts, than to Heat: Nor would it make any thing againſt us, if we ſhould grant they have more Blood than Men; for if it ſhould be ſo, it would not follow that they generate more Blood; but that they do not conſume ſo much. They being more ſalacious, and more prone to Anger, proves nothing; for one may come from their Pride, and the other from the weakneſs of their Minds; tho we confeſs that ſome Viragoes may be hotter than Men.

Age is the various ſeaſons of Humane Life, wherein ſome notable change is obſerved. They are eight: *Infancy*, which continues to the third year. *Childhood*, from the third to the tenth. *Puberty*, from the tenth to the eighteenth year. *Adoleſcency*, from the eighteenth to the twenty fifth. *Juvenility*, from the twenty fifth to the thirty fifth. *Virility*, from the thirty fifth to the fiftieth. *Old Age*, from the fiftieth to the ſixty fifth: *Decrepid Age* takes up all the reſt of the time of Life.

The Cauſes of Ages is the divers proportion of the Native Heat, at this or that time of Life, by reaſon of natural things, or things preternatural; ſo that the Ages in all are not circumſcribed within the ſaid terms of years; but they happen in ſome ſooner, in ſome later; and ſome grow Old ſooner than others.

In-

Infancy is the most Moist of all, which appears plainly from the flexibility and softness of the Members; all other Ages, the farther they recede from Infancy, the dryer they are. But it is not the hotest of all; for the greatest heat would not suit with moisture; for it would either dissipate it, or extinguish it. Heat therefore increases till Virility, and then it is at its height; for the habit of the Body, by continual action of the Heat, is dryed, and presses the mouths of the Arteries, and makes them narrower; so that on this account the thicker part of the Blood is kept from the Parts which it ought to moisten; the Serosities are not purged off, but are daily kept up more and more in the Vessels, they suppress the Fire of the Heart, and at last extinguish it. The abundance of this unconcocted Humidity is the cause of Hoariness in Old Men; and their Baldness arises from the defect of the matter of Hairs; which is a fat Vapour, or at least, because such a Vapour does not come to the Hairs, by reason of a constriction of the Pores. But in the mean while, we must not infer, that Old Men are moistest; for their Blood does not penetrate and moisten the parts of the Body, tho upon the account of the Excrements that are put off upon certain parts of the Body, as the Nostrils, Eyes, and the like, they may seem most moist.

From what has bin said it appears, that the next cause of Death in Old Men, is too great a Serosity of the Blood; but the dryness of the Body is the remoter Cause, and want of Heat the most remote; and therefore Old Men are best preserved by hot and dry things, as with Wine, and the Spirits of it, and the like; which revive the languid Heat, and dry up the Serosities.

CHAP. III.

Of the Native Heat.

IT may not be incongruous to add ſomething concerning the Natural Heat to the Temperaments; according to the variation whereof, the Temperament varies much.

The Natural Heat is nothing elſe but a quick and confuſed Motion of a ſubtile Matter, or certain Fire that is not Lucid, ſuch as we perceive in Lime when it is ſprinkled with Water, in ſeveral Chymical Fermentations, in Horſe-dung, and in Herbs heapt up together and putrifying; yet is it hot, and differs only from our common Fire in degree. This motion ariſes hence, *viz.* becauſe a ſubtile Matter inſinuating it ſelf into the Blood, cannot move freely in it, and therefore is forced to exert its power upon the Particles of the Blood, and to agitate them confuſedly; ſo that it has the ſame Cauſes with Fermentation, and therefore we may well think it proceeds from it.

Fermentation is an inteſtine Motion among the heterogeneous Parts of any Body, whereby that in ſome ſort, is rarified and fired. It is effected in this manner, *viz.* A ſubtile Matter paſſing through ſome humid and fluid Bodies, meets with rigid Particles which are not very flexible, which ſwim in them, and becauſe they cannot accommodate themſelves to the Pores, occaſion a Confuſion; ſo that then the ſubtile Matter inſinuates it ſelf in a large quantity to fill the Pores, and ſo it rarifies the ſaid Bodies; as more Men, for inſtance, can be contained in a Room, when they are quiet and lie ſtill, than when they move diſorderly; this is every where ſeen in humid Bodies,

as Wine that is quiet all the Winter, will Ferment ſo much in the Spring, as to break the Veſſel if there be no Vent, the ſubtile Matter being put into a motion by the approach of the Sun. But all Rarefaction of a Liquor is not properly Fermentation, but only that which is from an inteſtine Principle, or an Heterogeneity of Parts, and a diverſity of the Pores, by reaſon whereof the paſſage for the ſubtile Matter is rendered more difficult, and conſequently there is no Fermentation in Water, or in another Liquor more homogeneous, rarifying over a Fire; for it boils up only by being forced by a great quantity of ſubtile Matter from abroad, and not from any internal Cauſe.

The Natural Heat, or ſubtile Matter, reſides in the Ventricles of the Heart, eſpecially in the Left, and rarifies the Blood as it paſſes by. It is kept up by a ſubtile Matter, which is continually brought to the Heart, from the Nouriſhment, Chyle, and Blood.

We are hotter in Summer than in Winter; for our Pulſe are then quicker and ſtronger; our Thirſt is greater, and we then more deſire Cold Things, and Digeſt them without offence, and are injured by Hot Things, and are prone to Fevers; and we perceive no ſhaking or ſhivering after Meals, as in the Winter. We are Colder in the Winter, becauſe a ſerous Humour abounds then in the Blood, by reaſon Tranſpiration is leſs, and the Fire of the Heart is leſſen'd by the Cold Air that is breathed in; but the Digeſtion is beſt in Winter, and we grow fatter then, by reaſon of the moderate Heat; for great Heat diſſolves Fat, and diſſipates the Ferment of the Stomach; and therefore in Fevers, and in Summer, we grow Lean, and have but ſmall Appetites.

Moreover, in Sleep our inner-parts are not hotter than when we are awake, yea they are not ſo hot, as appears by the Pulſe, that are then more languid and

and leſs, and by the paleneſs; and this is agreeable to Reaſon; for the Blood does not then paſs ſo frequently through the Heart, and conſequently does not heat ſo much; and our Sweating a Nights does not contradict what has bin ſaid, for that proceeds chiefly from Vapours retain'd by the Coverings, and condenſed upon the Body.

The Natural Heat is ſometimes ſuddainly raiſed, as by Anger, or Joy, the Animal Spirits on this account flowing oftner into the Fibres of the Heart, move the Blood oftner, and increaſe the Fire of the Heart: This Heat is alſo increaſed by the motion of the Body, and by the uſe of Spices and Wind.

It is deſtroy'd chiefly three ways, *viz.* by ſuffocation, diſſipation, and want of repair; it is ſuffocated by too much Blood; as a ſmall Fire by too much Wood, or by the Viſcoſity of the Blood, or the Coagulation of it by Cold or Poiſon. It is diſſipated by too great Labour, or violent Sweats. It cannot be repair'd when there is want of Meat and Drink, or when the Aliment is weak, or by reaſon of a compreſſion of the Veſſels, or the thickneſs or viſcidity of the Blood. In Old Men the Natural Heat dies, partly becauſe it is oppreſs'd with Serum, and partly becauſe in a long tract of Time it is diſſipated.

CHAP. IV.

Of an Humour.

AN Humour is a liquid Subſtance in the Body of an Animal, bred according to Nature, by Meat and Drink; it is twofold, Nutritious and Excrementitious.

Nutri-

Nutritious Humours, are Humours apt to be turned into our Substance. They are innumerable; but the chief of them are these four, *viz.* Blood strictly taken, Flegmatick Blood, or Flegm; Choleric Blood, or Choler; Melancholy Blood, or Melancholy.

Blood strictly taken, is the redder and more temperate Portion of the Mass of Blood; they that have abundance of it are chearful, and comely.

Flegm is the whiter and cruder Portion of the Mass of Blood, of a Cold and Moist Temperament. Those that abound with it, are Slow, Sleepy, Pale and Fat.

Choler is the thinner Portion of the Mass of Blood, of an hot and dry Temperament: They that have it in abundance, are Angry, Agile, Witty and Lean.

Melancholy is the earthy and gross Portion of the Mass of Blood, of a cold and dry Temperament; They that abound with this Humour, are Sad, Fearful, and Black.

Chyle is a liquid Mass bred in the Stomach and Guts, from Meat and Drink; I say in the Stomach and Bowels, because some Chylification is made in these, tho' chiefly in the Stomach; but we shall speak more particularly of Chylification among Natural Actions.

The Chyle is expelled from the Stomach partly by the Muscles that contract the Belly, and partly by the impulse of the Liver; and partly by the Peristaltic motion of the annular Fibres of the Stomach, successively contracted from the upper Orifice to the lower. The Chyle being thrust from the Stomach into the Guts, is further elaborated there, by the ferment of the Stomach which it brings with it, and by the Bile and pancreatic Juice, which entring into the Duodenum, and mixt with the Chyle, are fermented together; and together with the Chyle, pass into the lacteal Veins, which are innumerable small Vessels,

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so

ſo very ſmall that they can't be ſeen, unleſs they are full of Chyle; they come out of every part of the Inteſtines and Meſentery. *Caſpar Aſellius* found them out in the year 1622. in diſſecting a live Dog well fed. Preſently after their riſe, they aim at the neareſt part of the Meſentery, whereunto the inteſtine from which they ariſe is knit; then they go the readieſt way to ſuch glandules of the Meſentery as are neareſt to them; but in their paſſage ſometimes, many little Branches meeting, grow into one great Trunk, *viz.* before they inſinuate themſelves into the gland, to which we ſaid they were going; but in their very entrance into the glands, or a little before, this Trunk ſeparates again into new Branches, more, and ſmaller than the other, which are obliterated in the very ſubſtance of the gland: Out of the gland there ſpring again new capillary Veins, which by and by meeting together, make one Trunk again as before; which being carried towards the beginning of the Meſentery, in their march join to themſelves, others of the ſame kind meeting them, and ſo grow larger and larger, and at laſt very many enter into the great or middle gland of the Meſentery, in the ſame manner they entred the ſmaller, and ſome paſs over its Superficies, and by and by they all empty themſelves into the common receptacle of the Chyle, that lies under the ſaid gland. This receptacle is ſeated under the Celiac Artery, and emulgents at the Vertebræ of the Loins, whence there ſprings a Duct, that preſently enters the Diaphragm, with the *Arteria magna*, where it begins to be call'd *Ductus Thoracicus*. This Duct having paſs'd the Midriff, it marches further up under the great Artery, till about the fifth or ſixth Vertebra of the Thorax, where it turns a little aſide from the great Artery to the Left Hand, and ſo below the intercoſtal Arteries and Veins, under the pleura and gland thymus, it aſcends to the

left ſubclavian Vein, into whoſe lower ſide it opens, juſt there where the left jugular Vein enters into it on the upper ſide, ſo that their Mouths face one another; but it opens not into this Vein with any large Orifice, but by ſix or ſeven little ones, being all covered together in the interior Cavity of the Subclavia, with one broad Valve looking towards the Cava from the Shoulder, whereby here is granted to the Chyle and Lympha a free paſſage out of the *Ductus Chyliferus* into the Subclavia; but their return, or of Blood with them out of the Vein into the Duct is prevented. This Duct ending thus in the ſubclavian Vein, the Chyle that it conveys into it, paſſes with the Blood, returning by the *Cava* into the right Ventricle of the Heart.

The Chyle in the Stomach and Guts keeps in ſome ſort, the Colour of what is eaten: So Cows and Sheep, becauſe they feed on Graſs, have a greeniſh Chyle. The Chyle of a Man is moſt commonly of an Aſh Colour; but in the lacteal Veins, and the Thoraic Duct, 'tis quite White.

An excrementitious Humour, is an Humour that is not fit to be converted into our ſubſtance: 'Tis divided into Natural and Preternatural; the Preternatural belongs to Pathology.

The Natural excrementitious Humour, is that which has not an inimical quality.

Excrementitious Humours are partly generated in the Blood, becauſe our Nouriſhment has ſome Particles which are apt to become Excrementitious, but partly becauſe the Blood loſes much of its ſubtile Parts, by being often rarified in the Heart, and by nouriſhing our Vital Fire; and on this account, many of its Parts are render'd unfit for uſe, and do hurt, unleſs they are eliminated from the Maſs of Blood, for the Flegm ſtops the paſſages: The Earth, or the *Caput mortuum*, coagulates; the Water hinders the in-

inflammability of the Blood; and the Sulphur by aduſtion, becomes bitter and acrid.

Moreover, divers excrementitious Humours are evacuated in divers places; and meerly according to their diverſity, as to magnitude or figure, in this or that emunctory, and in the particles of this or that Humour, without the help of any fictitious Faculty: And this will not ſeem ſtrange to any one, who ſees that meerly by a diverſity of the Pores and Parts, a wholeſom and unwholſome Herb grow near together in the ſame Ground; and one ſort of Juice flows in the Tree, another in the Bark, and another in the Leaves and Fruits.

A Natural excrementitious Humour, is divided into uſeful and unuſeful; a Natural excrementitious Humour is uſeful, when of it ſelf it is ſome way ſerviceable to the Body, as Milk, Seed, Menſtruous Blood, the Mothers Blood, yellow Choler, Melancholy, Serum, the Humour of the Pericardium, the acid Humour of the Stomach, Spittle, Pancreatic Juice, Lympha, and the ſlime of the Guts.

The Natural excrementitious Humour is unuſeful, when of it ſelf it is no way ſerviceable to the Body wherein it is bred; as Urine, Sweat, Tears, Snot, the Blood of a Woman in Labour, the Blood of the Hemorrhoids, and the Wax of the Ears.

Milk is a portion of the Chyle, ſeparated by the glands, into the milky Tubes, for the nouriſhment of the Infant.

The milky Tubes are Veſſels properly belonging to the Breaſts, and they come from their innumerable Glands, and terminate in the Paps with many holes; they are incompaſſed here and there with Nervous Fibres from the ſmall rope of the Arm-pit, that theſe being inflated, they may be contracted to preſs out the Milk.

The

The Matter of Milk is Chyle, and not Blood, as many heretofore have thought, and that it was turn'd White in the Breaſts; but it does not ſtay there long enough to be elaborated; and beſide, the Parts are not formed for ſuch an uſe. Moreover, a piece of Succory eaten before, has bin drawn out with it, and alſo the Bran of Bread eaten before: A Purging Medicine taken by the Nurſe, is preſently mixt with the Milk, and Purges the Child; and ſometimes when it does not the Nurſe, Saffron and Burnt Wine, and other things taken by the Nurſe, communicate the taſt and ſmell to the Milk in the ſpace of half an hour, or leſs; and the Nurſe preſently after drinking a large draught, finds a chillneſs and fullneſs in her Breaſts; which could not be if Blood were the Matter of Milk: Beſides, a Woman would conſume away if Blood were the Matter of Milk; conſidering, that a Woman in Health affords daily a Quart of Milk. Moreover, Fat Women have more Milk than Lean, and yet the Lean Women have moſt Blood, and their ſanguiferous Veſſels are larger: But you will ſay, that Blood is ſometimes ſucked out of the Breaſts, and that in Women that give Suck, the Veins of the Breaſts are more Turgid than at other times; and therefore Blood is the Matter of Milk. To the firſt I anſwer, That Blood is not ſucked without Violence; and therefore this does not prove that it is the Matter of Milk. Secondly, The greater diſtenſion of the Veins of the Breaſt prove nothing alſo, becauſe this is to be imputed to the greater motion of the Blood upwards, by reaſon of the compreſſion of the lower Arteries by the Womb.

I ſuppoſe the Thoracic Duct is the paſſage of the Chyle to the Breaſts, from whence ſome ſmall branches are reflected about the Calvicles, towards the Breaſts.

Women

Women with Child have Milk in their Breaſts, and eſpecially in a few days before Delivery, not becauſe the menſtruous Blood regurgitates from the Womb through the Epigaſtric Veſſels to the Breaſts, for theſe do not at all communicate one with another; and Circulation refutes this: Beſides, ſome Virgins have Milk, yea Men and Children; and many Animals which have not the Courſes; but the reaſon is, for that in Women with Child, the Child growing big, the Womb is wonderfully expanded, and ſo the ſanguiferous Veſſels of the lower Belly are preſs'd; and therefore the Blood regurgitates upwards, and thereby its quantity and heat, opens the Pores of the Glands of the Breaſts, and cauſes the lacteal Tubes to expand more; and for the ſame reaſon, the receptacles of the Chyle are more preſſed, and the Chyle is more forceably driven upwards, and ſo opens more the glands and paſſages of the Breaſts, and the lacteal Tubes.

The Milk after Delivery flows more freely; for the Chyle that uſed to be carried to the Womb for the Nouriſhment of the Child, regurgitates upwards, the paſſages of the Womb being ſtopt: Beſides, the Infant ſucks; and how much that conduces to the production of Milk, none will wonder that reads in Hiſtory, that Milk has bin drawn to the Breaſts of Virgins, by continual Suction alone.

The Milk at length ceaſes, either becauſe the Child is wean'd, or becauſe the Nurſe is with Child, and then the Chyle begins to return to the Womb, for nouriſhment of the Fœtus; and continues this courſe till the Womb being more diſtended, towards the end of gravidation, preſſes the Veſſels of the Chyle.

The cauſe that Children newly born, Old Women, and Men, have Milk in their Breaſts, are the largeneſs of the paſſages of the Breaſts, the laxity of the Glands, and the abundance of Chyle.

Seed

Seed is a whitiſh Humour turgid with Spirits, bred in the Stones, and *Proſtatæ*, and further elaborated for Generation in the carrying Veſſels, and the ſmall Seminal Bladders. The Matter of it is Blood carried on both Sides, from the Trunk of the *Aorta*, in a ſtrait Paſſage by the Arteries to the Stones, and there put off thro the ſmall Glands that are only viſible by a Microſcope upon the tubulous Subſtance of the Stones; this is confirm'd by the artificial Diviſion and Diſperſion of the Arteries in the Stones, and *Proſtatæ*, and by the Straitneſs of them, together with the Wreathing of the correſponding Veins, and the Multitude of Valves, for theſe are ſo framed, that the Blood may paſs quicker to the Stones, than from them, and that the nobler Part of the Blood may the eaſier ſweat throught to the tubulous Subſtance of the Stones from the ſmall Glands and Arteries every where join'd to it, for the making of Seed. Moreover, it appears hence, *viz.* becauſe thoſe that are of a Sanguine Complexion abound moſt with Seed,

But ſome will have the nervous Juice to be the Matter of it, for theſe Reaſons, becauſe they perceive many Nerves in the Teſticles, and that the taking away of a great Quantity of Blood, does not ſo much weaken a Man, as the Loſs of a little Seed, and that after Coition, the Head akes, and that ſuch as are given to Venery, are ſubject to Diſtillations from the Brain on the Spinal Marrow. And laſtly, becauſe the Teſticles are white, not red To the firſt I anſwer, that the nervous Juice is either Animal Spirit condenſated, or another Humour: But the Nature of a Spirit which hath Particles that quickly fly away, cannot condenſate into a Seminal Humour, and the nervous Juice can be no other Humour, for if it were, it wou'd ſtop the Paſſage of the Nerves. To the ſecond I anſwer, this is manifeſt to Senſe, and they convey a great many Spirits, which ought to be in the Seed, without which

the Blood could not paſs through thoſe innumerable and narrow Tubes which are in the Teſticles, nor be changed into prolific Seed, which ought to be made by the various Motion of the Spirits, and the Particles of it, and the working of them among themſelves. To the third, fourth, and fifth, I anſwer, that it may be eaſily underſtood that this happens only by the Loſs of Animal Spirits; for the Teſticles being emptied, the Nerves proportionably, at leaſt thoſe which are near, are alſo emptied, and then by Reaſon of the greater Facility of the Motion towards them, Spirits flow more abundantly into them, and ſo the other Parts, and alſo the Brain are robb'd, and upon this Account the Fibres are diſordered, and the Brain becoming cold, condenſes the Vapours, and puts them off on the Spine. To the ſixth I anſwer, that all the Parts and the Teſticles alſo are nouriſhed with Blood, and yet all are ſomewhat white.

Seed begins to be generated about Puberty, becauſe the Heat of the Glands of the Teſticles being then greater, opens more the Arteries and ſmall Veſſels, and drives the Blood better through them, and the Nerves are readier to carry Spirits.

The Seed is of an Aſhy Colour in the Tubes of the Teſticles, but whiter in the Head of the *Epydidimidis*, it is made in the Teſticles and *Proſtatæ*, and is conveyed by the carrying Veſſels by a very ſmall and winding Duct to the Seminal Bladders, wherein it is kept, and further elaborated, till by Titillation the Nerves and Fibres about the Sides of them, being much inflated, preſs out the Seed, which is then very turgid with Spirit, into the Urethra, through the Holes of the Gland that ſtops the Seminal Bladders.

The Stones are the Shop of the Seed, and therefore Eunuchs have not Seed, but ſome Titillation they have, by reaſon of a certain Humour that drops from the *Proſtatæ* into the Urethra, but this is not true

Seed.

Seed. And yet Eunuchs may have Seed in the Seminal Veſſels ſufficient for Copulation once or twice, and may impregnate a Woman.

Thoſe which do not indulge themſelves in Venery, and live chaſtely, do not generate much Seed, for the Paſſages are narrowed by degrees, and the Seminal Matter turns back, and nouriſhes and makes fat the Loins and other Parts.

Women have prolifick Seed, if by that you underſtand the Eggs whereof their Teſticles are full, which being made fruitful, and expanded by the Man's Seminal Air, break out of the Cups wherein they are chiefly contain'd, into the Fallopian Tubes, and from thence into the Cavity of the Womb.

That Humour which Women emit in Copulation, is not true Seed, becauſe that is ejected without, about the Clytoris and Orifice of the Privities, and never into the Womb; this is manifeſt in big-bellied Women, the Orifice of whoſe Womb is always cloſe ſhut, and cover'd with a yellow Mucilage. And beſides, many Women conceive, and yet, as they ſay, have not emitted that Humour: Moreover, it has ſeldom the Conſiſtence of Seed, nor is it Spirituous, becauſe Whores copulating often in a Day, are not weakened by the Excretion of it, nor is it elaborated as Seed, for it is not generated in the Organs of it, but in the Glands.

The Furrows of the Womb emit this Humour, or certain Ducts opening into the Sheath from the *Proſtatæ* or other Glands of the Womb, by Reaſon of Titillation, and the Conſtriction of the Fibres of the Womb, which happens in Coition.

And yet this Humour is profitable, becauſe it perpetually moiſtens the Sheath, and perhaps it conduces to the Elevation of the Man's Seminal Spirit or Air from the Sheath to the Cavity of the Womb, and from thence to the Eggs to make them fruitful.

Menſtruous Blood, is Blood abounding in the Body, which is evacuated by the Womb Monthly.

The chief Cauſe is the abounding of the Blood at a certain Time, Heat and the eaſie Dilatation of the Womb alſo help. That a Plenitude is the Cauſe may be proved, for that they that have moſt Blood, evacuate moſt this way, and then ruſtic Women, that conſume much Blood by Labour, have little or no menſtruous Flux, and thoſe who have loſt much Blood by Venefaction, have few or no Courſes at all: Men alſo who do not abound with Blood, by Reaſon of Labour and more Heat, have no ſuch Flux. But there are ſome Women who Monthly evacuate Blood by the Noſtrils, Hemorrhoids, or other Parts. Thoſe Women that are hot have the Courſes ſooner, but in a leſs Quantity, and not ſo long as thoſe that are cold.

Some ſay the Cauſe of the Courſes is a certain Saline Ferment of the Womb, being gradually depoſited on the Subſtance of it, whereby the Womb collecting much Fire in it ſelf, is turgid, rarefied, and dilated, grows hot, and evacuates the more fluid Blood, until that Ferment is carried off, and this Ferment they ſay is manifeſt from thoſe things which move the Courſes, for they conſiſt of much volatile Salt.

According to theſe Cauſes the Courſes begin to flow about the fourteenth Year, becauſe the Body then having in a manner its due Magnitude, the Blood begins to abound, and to be luxuriant in the Womb and other Parts, and hence the Breaſts grow big, the Womb is leſs wrinkled, and does not preſs its Arteries ſo much, and a greater Heat exagitates the Blood more violently, dilates the Arteries, and opens them.

The Courſes ordinarily ſtop about the fiftieth Year, partly by the Defect of Blood and Heat, and partly upon the Account of the Narrowneſs and Drineſs of its Paſſages.

The

The menſtruous Blood is brought firſt to the Sheath of the Womb, and not to the Bottom of it, for it ſometimes flows in Women with Child, and if it ſhou'd drop from the Bottom, it wou'd putrifie, and injure the Child and its Nouriſhment, and ſo occaſion Abortion.

The menſtruous Blood does not ſtagnate in the Veſſels of the Womb, but circulates as the other Bood does, for otherwiſe it wou'd become venomous, but it is thinner and hotter than the other Blood, and therefore being taken inwardly it forces the Courſes.

About the Time of the coming of the Courſes, Pain and Tenſion and Heat are felt about the Spine and Hypogaſter, becauſe the Blood can't at firſt break through the Arteries. This menſtruous Blood is Arterial, for only Arteries lead to the Womb; when it can't be expell'd by the Womb, it is ſometimes ejected by the Lungs, Gums, Noſtrils, or the like. It ſeldom flows in a Woman with Child, becauſe it does not abound in them, partly becauſe it is ſpent for the Increaſe of the Womb, and partly becauſe Part of the Mothers Chyle goes to the Child.

Yellow or natural excrementitious Choler is a yellow and bitter Humour, ſecreted from the Maſs of Blood into the Gaul Bladder, or *Porus Bilarius*, it is ſeparated by the Impulſe of the Blood of the *Vena porta*, into the Glands of the Liver, which it paſſes through, by reaſon of the ſpecial Conformity of them, with its Particles, as to Magnitude and Figure, and it enters the Branches of the Gaul Bladder, and of the *Porus bilarius*, diſperſed among the Branches of the *Vena porta*, which abſorb the Choler from the Extremities and Pores of the ſaid Gland. But Choler may come partly to the Gaul Bladder by the cyſtick Arteries, being ſtrain'd through the ſmall Glands placed betwixt the Tunics of the Bladder. From the Gaul

Bladder and *Porus Bilarius*, 'tis driven by a Conſtricti-on of the Fibres, into the *Ductus Cholidochus*, inſerted obliquely into the *Duodenum*.

The Choler which comes from the *Porus bilarius*, is thicker, more feculent, and paler, than that which is in the Gaul Bladder, and the Choler in the Gaul Blad-der; by reaſon of its Thinneſs, ſweats through, and tinctures the neighbouring Parts.

Particles of the Chyle and Blood that are Salinoſul-phureous, are the Matter of the Choler, being nearly joyn'd with the *Serum*, and by the further Coction in the Heart render'd acrid, and turn'd to Choler; which, by reaſon of their ſmall Quantity, are not bitter, till they are ſeparated, and for this reaſon fat things in-creaſe Choler, and ſuch as are hotteſt are moſt chole-ric.

The Uſe of it, according to the Opinion of ſome, is to dilute the Chyle, as well in the Inteſtines, that it may the eaſier paſs the Mouths of the lacteal Veins, as in the thoracic Duct, and they ſay, that the thinner and ſweeter Part of it accompanies and heats the Chyle, leſt coming too cold to the Heart, it ſhou'd ſtop the Rarefaction in it: And they ſay, that the groſſer Part of it is evacuated with the Excrements, which it tinges and dilutes, but it may be well doubted whether Choler can accompany the Chyle in the Tho-racic Duct, and whether all of it ſhou'd not rather be expell'd with the Excrements by Stool, for the Chyle in the thoracic Duct, and in the other lacteal Veſſels is ſweet like Milk: And on the contrary, a great Quantity of Milk will grow bitter with a few Drops of Choler, yet it is certain that Choler does continually drop from the *Ductus Cholidochus* into the *Duode-num*.

But it is ſuppoſed that the chief Uſe of Choler, is to ferment the Chyle that paſſes from the Stomach, the pancreatic Juice being mixt with it in the *Duodenum*, that

that the Diſſolution of the Chyle, which was imperfect in the Stomach, may be perfected in the Inteſtines; and it appears to Sight, that Choler dropt upon Dough, ferments it: Moreover, it melts and cleanſes Crudities from the Guts, it heats them when they are chill'd by things taken in, it drives away Putrefaction from this Sink of the Body, and kills Worms, and expells them; and is alſo the Cauſe of the periſtaltic Motion, whereby the Chyle is moved through the Inteſtines, and the Excrements are evacuated, as it continually irritates and provokes the Spirits from the Brain to the Fibres of the Guts, as we ſee in divers other Caſes, for the Inteſtines, Heart, Veins, Arteries, Urinary Bladder, Stomach, Gaul Bladder, the Membranes of the Brain, and the like, have a certain proper Perception, whereby their Fibres are ſucceſſively ſtimulated to contract and dilate, and ſo we ſee the Guts of an Animal diſſected, and yet warm, creep within themſelves; and the Heart cut up, beats; and the Muſcles of a dead Beaſt, touched with an acrid and pungent Liquor, contract.

Natural excrementitious Melancholy, is that Part of the Humours that is ſo terreſtrial, that it cannot nouriſh; it is commonly defined, a black and acid Humour, ſeparated from the Blood in the Spleen, proper to contract the Stomach, and to excite Appetite; but there is no ſuch black acid Humour in the Stomach, nor in the Spleen; and perhaps the Capillary Arteries can't admit of ſo groſs an Humour; the Spleen of a living Dog has been cut out, and yet his Appetite has not been leſſened, and he has grown fat: Moreover, the Spleen ſends nothing to the Stomach, for this ought to be done by the ſhort veiny Veſſel, which is a Vein, *viz.* of the Spleen Vein; but the Valves hinder, as appears by Inflation; and it is repugnant to Circulation, for no Vein brings to any Part, except the *Vena Porta*, and the Vein of the Lungs.

The Serum is the moſt watry Humour of the Blood, when it is ſeparated, it has other Particles mixt with it, as ſaline, acid, and others, according to the Diverſity whereof, it is called *Lympha*, Spittle, or is otherwiſe named, and ſo it is never pure. It ſerves as a Vehicle for the Blood and other Humours, to nouriſh the innermoſt Parts, by entring, expanding, and looſening the Pores. There is great Quantity of this Humour in the Body, by reaſon of the great Quantity of Liquids that we dayly take in.

The Humour of the *Pericardium*, is a ſerous Humour contain'd in the *Pericardium*, the Matter of it is *Serum*, mixt ſometimes with a little thin Blood that it brings with it, and is therefore ſomewhat like the Water, wherein Fleſh has been waſhed, and ſometimes it is like a Gelly, ſome nutritious Particles being mixt with it: From whence this Humour comes is diſputed; ſome ſay it is a Vapour, which exhales from the Heart, and is cooled and condenſed in the *Pericardium*. Some will have it come from the Glands of the *Thymus* that hang from the Throat to the *Pericardium*, but it comes both Ways, but eſpecially by the Lymphatick Veſſels; it does not come only from the *Thymus*, becauſe the *Thymus* in Infants is proportionably the greateſt, and in Progreſs of Years, is ſo leſſened, that at the Time of Virility, and in the following Ages you can ſcarce find any thing beſides Veſſels and Nerves: The Uſe of this Humour is to cool and moiſten the Heart, that it ſhou'd not be dry'd up by its continual Motion, it cools the Heart, as Water contain'd in a Pot does the Bottom of it, *viz.* by taking from it the Particles of Fire which eaſily paſs through the ſtrait Pores of it.

As the Humour of the *Pericardium* is always renewed, ſo in like manner it is evaporated from the *Pericardium*, and is received into the Lungs, or Veins of the Throat, or *Thymus*.

Spittle

Spittle is a ſerous Humour, that drops from the ſalivary Ducts, theſe Ducts are Veſſels of their Kind, four of them are moſt noted, the two uppermoſt that take their Origine with various Branches from the parotid Glands, and at the Jaws run under the Skin with a manifeſt Orifice into the Mouth. The lowermoſt alſo proceed with divers Branches from maxillary Glands, whereof one that is greater, before it reaches the common Trunk, is carried under the digaſtric Muſcle of the Jaws. The lower End on both ſides under the Tip of the Tongue, near the Fore-Teeth, where are ſome Teats placed. The Matter of the Spittle is carried to theſe Glands by the Arteries: It diſtils, moreover, in all the Mouth, as from the Glands under the Tongue, and from the Almonds which have two clear Bladders placed near them, that receive the *Serum*, from the Glands, and pour it out into the Mouth: There is alſo, on both ſides, a common large oval Sinus, that opens into the Mouth, which contains in its Fringe, two greater Sinus's, and ſeveral others, that are leſs, with other Glands, each whereof hath a ſmall perforated Sinus in the Middle.

By moiſtening the Tongue, Mouth, Palate, Oeſophagus, and *Aſpera Arteria*, it quenches Thirſt, helps ſwallowing, and begins Chylification in the Mouth, for it participates of the Nature of the acid Humour of the Stomach; that is, it has ſome ſaline acid Particles incorporated with *Serum*, and therefore a *Bolus* of chewed Bread expoſed to the Sun, turns to Chyle, and Pieces of Fleſh ſticking in the Teeth, grow white, yet Spittle alone is not ſufficient for Chylification: It extracts a Tincture from Meats, and carries it to the Organ of taſting, and therefore without Spittle there wou'd be no Taſt.

The Spittle returns continually, with or without Chyle, to the Heart by the lacteal Veins.

When

When we ſmell or ſee any thing that is pleaſant, or greedily long for any thing, the Spittle waters the Mouth more plentifully, becauſe the Nerves of the wandring Pair, do not only ſend Branches to the Ducts and ſalivary Glands, but alſo ſome to the olfactory and optick Nerves; upon which account a great Influx into theſe, affects alſo the Nerves of the wandring Pair, and ſo by a Contraction of the ſmall Fibres, the Salivary Ducts are narrowed, and the Spittle is ejected.

The rouling about of a Bullet, or the like, in the Mouth, quenches Thirſt, becauſe by moving the Tongue, we narrow the Ducts, and ſo preſs out the Spittle.

Juſt as we are about to vomit, Spittle flows more abundantly from the Mouth, becauſe the Stomach participates with the Maxillary Glands by the Branches of the Nerve of the ſixth Pair, and its inner Tunick is continued to the Jaws and Palate, and ſo they are contracted by Sympathy, and caſt forth their Humidity, and in the ſame manner vomiting is provoked by irritating the Membrane at the Beginning of the Oeſophagus.

The acid or digeſtive Humour of the Stomach, is an acid Humour, that diſtills continually from the Tunics of the Stomach; it may be proved there is ſuch a thing, becauſe 'tis often found in the Stomachs of Dogs that have been diſſected, after they have faſted a while; and ſometimes we belch it up in a Morning, though we are well, and after due Chylification, and the Teeth are often ſet on Edge in vomiting by this mixt with the Meat, and by taking Acids Chylification is further'd, and therefore there is an Acid in the Stomach, which is the Cauſe of Chylification. But you will ſay that I have only proved that there is an acid Juice in the Stomach, and not that it is natural; it may proceed from Chylification vitiated, as we often

often ſee it happens in a Morning after Surfeiting. Moreover, an Acid is the Cauſe of Obſtructions and Coagulations in the Body, and it irritates the Nerves, and the like: And conſequently 'tis not naturally in the Stomach. I anſwer, 'tis certain that ſome acid Humour muſt be generated in the Stomach, becauſe there is ſcarce any Aliment that does not contain ſome Acid, and therefore the Generation of it is natural, though ſometimes this Juice is too acid, or there is too great a Quantity of it, and then it much injures the Body: So Choler, though it be natural, if it be too much heighten'd, or abound too much, occaſions Diſeaſes.

And 'tis probable that ſuch a Juice ſweats continually into the Inteſtines through their glandulous Tunic.

The Matter of it is a ſerous Humour, mixt with acid Particles, but it is not natural excrementitious Melancholy, as was wont to be ſaid; for it is thicker than that. Thoſe acid Particles are made by the like in Aliments taken in, and therefore Acids eaten increaſe the Acid of the Stomach.

The pancreatic Juice is a ſerous Humour that is poured out of the Pancreas into the Inteſtine.

The Pancreas is a certain Body of many Glands, cover'd with a common membrane of Veſſels and Nerves, the branches of them being faſtened among themſelves; it is tranſverſly placed under the Stomach: One of the extremities of it is extended to the Spleen, the other is bound to the *inteſtinum duodenum*, and deſcends a little with it. The Pancreas has an excretory Veſſel proper to it, conſiſting of many Branches, each whereof has annext to it, the Glands of the Pancreas; yea, it does in ſome ſort receive them: It is commonly call'd the pancreatic Duct, and it is wont to be inſerted in the ſame mouth with the *ductus cholidochus*, obliquely into the *inteſtinum duodenum*, or the beginning of the *Jejunum*.

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The Blood being carried by the Arteries, and forced upon the Glands of the Pancreas, conveys the pancreatic Juice through the pores of them into the branches of the Duct; and from these branches it distills into the greater Duct, and thence into the Intestine, in a small quantity; for it can scarce be seen, when the Duct is bound in a living Dog. It has a sub-acid Tast, by reason its acid saline Particles are diluted with Serum; and when the Choler is poured on it, it occasions a Fermentation. The use of it is to ferment the Chyle with the Choler in the Intestine: Moreover, it attemperates the Choler, that it should not hurt the Intestine; and it dilutes the Chyle.

Lympha is a lympid serous Humour, contain'd in the Lymphatic Vessels. These Lymphatic Vessels are very small and pellucid, and they arise almost from every part of the Body, and absorb the Liquor of them; and that they may pass the safer, they here and there encircle the greater Vessels (as may be seen in the Limbs and *Vena Porta* near the Liver) like Ivy.

As far as we can learn by the Constitution of the Valves, and by Ligature and Inflation, the Lymphatic Vessels that are below the Diaphragm, chiefly end in the common receptacle of the Chyle, the rest above the Diaphragm, are inserted at the concourse of the Jugular with the Axillary, into the upper part of the thoracic Duct, and Pericardium; and there they discharge their Lympha by manifest passages, defended with a Valve; here and there they cannot be seen, because on the account of Tenuity, the parts under appear through those Vessels, and we can't easily distinguish them, especially if the parts are white; but sometimes the Lympha is a little red or yellowish, and then they appear the better, and also after the Death of a Creature; for then the Vessels are more distended, by reason the motion of the Lympha is slow.

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The uſe of the Lympha is to dilute the Chyle in the Receptacle, that it may the eaſier aſcend through the thoracic Duct; and in the Jugular Vein, it renders the venous Blood that is deprived of its own Serum more fluxile, that it may the eaſier rarifie in the Heart; and it reſtores the humour of the Pericardium.

The ſlime of the Guts is a viſcid and glutinous Matter that covers the Guts within; the Stomach has ſome of it, but it is moſt in the Guts. The Matter of it is a phlegmatic Humour, carried by the Arteries to the glandulous Tunick of the Inteſtines; and being ſeparated through it from the Blood, ſweats into the Cavity of the Inteſtines.

The uſe of this Slime is to defend the Nervous Tunic againſt the acrimony and roughneſs of the Choler, and of things taken in; and probably becauſe it partakes of Acidity it conduces to Chylification.

When Choler, or a purging Medicine is very Acrid, the Slime is melted or rubb'd off, to the great prejudice of the Patient; for Gripes and the bloody Flux are occaſion'd thereby.

Sweat is a ſerous Humour breaking through the ſudorific Veſſels of the Skin, in form of Water. Theſe Veſſels are ſmall Tubes in the Pores running out to the Cuticle, and each of them has a Gland under, through which the Serum, the Matter of Sweat is ſeparated, they may be ſeen with a Microſcope.

Sweat by reaſon of ſalt Particles mixt with it, is Salt. The efficient cauſe of natural Sweat is Heat, *viz.* Of the Sun, of the Fire, Exerciſe, Coverings, and the like, whereby the Blood is more agitated and diffuſed through the habit of the Body; and the mouths of the Arteries near the Skin are more opened, and the ſerous Particles that are more flexile, and that ſtick leſs to others, run out of them; and if there be any Humidity in the Skin, they carry it off with them through the

the Pores of the Skin; but becauſe they do not paſs free enough, and quick enough, many of their particles being heapt together, are condenſed into drops, for otherwiſe they would paſs by inſenſible Tranſpiration, as always ſome thin part does in Sweating. From what has bin ſaid, it appears that plenty of Serum, and a moderate apertion of the Pores, conduce much to Sweat; but that too great an apertion of the Pores, becauſe it does not at all hinder the Flux of the Serum, conduces moſt to inſenſible Tranſpiration, and too great a Conſtriction of the Pores hinders Sweating; but when 'tis once begun, it much increaſes it: And hence Sweat occaſion'd in Winter by Exerciſe, is much more than in Summer.

We Sweat more ſometimes after cleanſing the Face, becauſe the Pores are freed from the Sweat that obſtructs them. Sweat is ſuppreſſed by ſitting near the Fire, becauſe the Pores are thereby enlarged, and the Vapours fly away inſenſibly; and this is alſo the reaſon why Sweat ſooner goes off when we ſit ſtill in the Sun, than under the Shade of a Tree; and alſo why he Sweats more that runs in the Shade, than he that runs in the Sun.

We Sweat moſt in the Arm-pits and Groins, becauſe thoſe parts being moſt cover'd, the Vapours are more retain'd. We Sweat when we Sleep, becauſe then we are either oppreſſed with Clothes, or at leaſt, cover'd with them all over; and becauſe the animal Spirits in Sleep do not ſufficiently flow to the outer Parts and Muſcles, and ſo the Vapours ſtay about the Skin, or by reaſon of the covering do not ſufficiently fly away.

Smiths and Ruſtic People ſeldom Sweat, becauſe by their Filth the Pores are ſhut. Our Hands and Feet Sweat moſt, becauſe in them the Arteries are carried ſtraiter to the Skin, and their Mouths are more open there, that the Blood may return to the Veins, and

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on this account the Serum is put off there more plentifully. It has bin obſerved, that a perſon Drinking plentifully of *Spaniſh* Wine, has render'd his Sweat like it; but this proceeded from too great a quantity, whereby the heat of the Heart being almoſt ſuffocated, cou'd ſcarce change it.

Our bleſſed Saviour in the Garden Sweat Blood, partly out of Love to us, and his moſt holy Father; his Blood did ſo Ferment that it could not be contain'd in the Arteries, and partly by reaſon of Sorrow unto Death, there was ſo great Horrour and Colliſion of the Parts, that Blood was violently preſs'd out of the Pores.

But ordinarily Blood does not Sweat out of the Pores, becauſe it is too ramous; but yet ſometimes naturally, ſome ſmall particles of Blood do accompany Sweat, and then the Sweat diſcolours the Linen, eſpecially in the Arm-pits.

Urine is a ſerous Humour ſtrain'd in the Reins, which comes with the Blood (which it diluted) to the Reins by the Arteries of the Kidnies, but is ſeparated from it as ſuperfluous, and that continually, as part of the Blood is continually driven to the Reins to nouriſh them. It is ſtrein'd in the Reins in the following manner; the Blood mixt with the Serum forces upon the glandulous ſubſtance of the Reins, and by this impulſe, preſently ſome thin particles are ſeparated through the Pores of it into many ſmall Tubes, whereof chiefly conſiſts the inner ſubſtance of the Reins; and from theſe ending for the moſt part in eight or nine papillary Caruncles, they paſs into the Pelvis, and thence into the Ureters and Bladder; the reſt which came to the Reins, returns partly to the *Vena Cava* by the emulgent Veins, and dilutes, and carries the Blood as before.

Beſides, the Serum of the Blood Choler is mixt with the Urine, and tinctures it of a yellowiſh Colour, and alſo

alſo other particles from the Maſs of Blood: For instance, ſome nutritive particles of Blood rubb'd off or melted, Sulphureous, Saline, fixed, incorporated with terreſtrial Particles, and the like, which by waſhing the parts it carries off.

Some ſay, that part of the potulent Matter, or of another Liquor taken in, is the Matter of Urine; and they ſay, it does not come by the Arteries, but by ſome nearer way: For inſtance, preſently from the Stomach or Bowels, by ſome ſpecial Ducts running to the Ureters or Bladder, and they rely on theſe reaſons, *viz.* We preſently make Water after drinking, eſpecially of the Spaw-Waters, and the Urine has ſometimes the colour and taſt of what we take in. Theſe Reaſons indeed are probable, but they do not prove the thing for which they are uſed; for firſt, ſuch paſſages have not hitherto been found out by Anatomiſts; and the making of Water ſo ſoon after Drinking, may be underſtood without the ſuppoſition of ſuch paſſages; and in this manner, becauſe a potulent Liquor drank plentifully, preſently increaſes the flux of the Serum to the Reins, partly becauſe flowing preſently from the Stomach to the Inteſtines, and from thence to the lacteal Veins, it thruſts forwards the Chyle, previouſly exiſting as well in them as in the thoracic Duct, and ſo the Serum is increaſed in the Maſs of Blood; partly becauſe large Drinking diſtends the Stomach and Bowels, and ſo preſſes the ſanguiferous Veſſels of the Bowels, and ſo the Blood, with its Serum, abounds in other Veſſels; and therefore to make free paſſage for it ſelf, it puts off its Serum, which by reaſon of its tenuity, eaſily paſſes the Reins; and indeed, though the Drink muſt paſs before it be evacuated through the Stomach, Guts, lacteal Veins, thoracic Duct, and other parts, that it may come with the Blood to the Reins, yet it may be eaſily underſtood how it comes to paſs, that we make

Water

Water ſo ſoon after Drinking. For firſt, that which we void by Urine preſently after Drinking, is not the Drink; for if it were, it wou'd retain the Smell and Taſt, eſpecially when ſome odoriferous and tincturing thing is taken in; and it wou'd appear crude and unconcocted, as that we evacuate by Urine the ſecond or third time after Drinking. But that which was before in the Thoracic Duct, or in the Veins or Arteries is thruſt forward by it: And then the potulent Matter runs its Courſe ſoon enough; and 'tis very probable that the Blood in any healthy Man, finiſhes its Courſe in a Quarter of an Hours time, ſo that 'tis no ſuch ſtrange thing that we make Water ſo ſoon after Drinking, yet 'tis not ſo very ſoon as is ſaid, unleſs the Bladder were diſtended with Urine before. As to the Smell and Colour, which ſometimes the Urine has from things that are taken in, as we ſee when Aſparagus or Madder are eat, theſe are not alſo ſufficient Proofs for particular Paſſages, for this may be becauſe things taken in do not continue long enough in the Blood, ſo as to wholly put off their Qualities in it; and this is ſo much the more, by how much the ſaid things that are odoriferous, and that give a Tincture, are more aperitive: Moreover, ſome Hiſtorians relate, that a Perſon, after drinking a large Quantity of *Spaniſh* Wine, has ſweat it out in Colour and Taſt as before, and therefore it may be as reaſonably expected that we ſhou'd ſhew particular Paſſages in this Caſe, as for the Urine, when it has the Qualities of the Liquor taken in, and yet there are hitherto no ſuch Paſſages found out for the Sweat.

But I wou'd not be ſo underſtood, as that I wou'd wholly reject particular Paſſages, for that there are ſuch is very plauſible, and I hope they will be found out at one time or another, by the Induſtry of the modern Anatomiſts.

The Urine falling continually from the Reins through the Ureters to the Bladder, is retain'd in it, until by the Quantity or Quality, it ſtimulates to Excretion. It is evacuated by a Contraction of the Muſcles of the Belly, and of the Fibres of the Bladder, whilſt they being irritated, the Spirits flow more plentifully into them; and how great the Contraction of the Bladder is, may be ſeen in the Diſſection of a Beaſt; which, when it is vaſtly expanded, after Evacuation of the Urine, ſinks into a very ſmall Compaſs: Left the Urine ſhou'd flow out when we are ſleeping, or involuntarily, a great round Muſcle is placed before the Neck of the Bladder, call'd Sphincter; ſuch an one as is at the End of the right Gut, for retaining the Excrement; and therefore to make Water, we contract the Belly and Bladder ſo much, as to ſomewhat overcome the Action of the Sphincter, which is perpetual Contraction.

The Urine cannot return again from the Bladder to the Ureters, becauſe they are obliquely inſerted within the Membranes of the Bladder, and ſo when it lyes upon them it ſhuts their Paſſages.

In a Calf, and the like, all the time they are in the Womb, the Urine is evacuated through the upper Part of the Bladder, but not ſo in an Humane Fœtus, which either voids it into the Womb, or it is kept in the Bladder all the time the Child is in the Womb.

We make more Water in the Winter than in the Summer, and ſo being placed in cold Water, becauſe by the Stoppage of the Pores inſenſible Tranſpiration is hindred, and the Serum is diverted to the inner Parts.

Tears are a ſerous Humour, flowing from the Eyes of thoſe that weep: The Matter of them is a Vapour and ſalt Serum, continually brought through the Arteries with the Blood, to the weeping Glands, to lubricate and moiſten the Eye, and through them ſe-

queſtered

queſtered into the weeping Ducts, which are very numerous in the Eye-lids..

Serum flowing in too great a Quantity to the Eye: Alſo Collyria ſometimes running through the Noſtrils and Palate, through the weeping Gland, placed in the greater Angle of the Eye, that is very ſpongy, and through three or four Holes of the Bone of the Noſe, are taſted in the Mouth; through theſe Holes the Rayes of the Sun enter partly the Noſtils, when looking on the Sun we ſneeze.

Our Eyes water upon the account of a Moat, Aſh, Smoak, Onions, Garlic, and the like; becauſe by reaſon of theſe, Pain being occaſion'd in the Eye, there is a greater Flux of Blood than is uſual, and a proportionable Separation of Serum; or becauſe, by reiterated Contractions of the Belly, then intervening, the Bowels preſs more the Aorta, and the Blood, with its Serum, is more moved upwards, and for the ſame reaſon in other Pains; in Trumpeting, Coughing, ſneezing, drinking, and the like, our Eyes water.

In Sorrow Tears flow, partly becauſe by reaſon of a leſſer Influx of the Spirits, the Pores of the Eye fall down, and the Vapours gather together; partly, becauſe now and then, by reaſon of interluding Love or Joy, without which there is no Sorrow, the Blood being driven generouſly through the Body, puts off its Serum more largely on the weeping Ducts.

Snot is a clammy and viſcid Humour ſticking to the Noſtrils; the Matter of it comes from the internal Arteries of the Noſtrils; or it may be a flegmatic Humour pour'd out of the Arteries upon the Brain, and may paſs from thence through the *Os Cribroſum* into the Noſtrils, and grow thick there by the Cold, or by alternate Expiration and Inſpiration of the Air, whereby its thin Particles are dry'd up; for the Mamillary Proceſſes are hollow to the Ventricles that are

before: And part of it may be alſo a Vapour condenſed in the Noſtrils; but it does not come, as is ſaid, through the Hole of the Bone of the Skull to the Palate, for here are no Paſſages for it, but all the Humour coming from the Ventricles to the *Infundibulum*, and pituitary Gland, is refunded through the Membrane under the Gland that is pervious with many ſmall Holes, into the jugular Veins that are placed on each ſide of the *Cella turcica*.

If we expire, or inſpire ſtrongly, the Mouth being ſhut, the Snot is carried with the Air to the Noſtrils from the Palate; and ſo on the contrary.

The Blood of a Woman in Child-bed, is Blood whereby the Woman is purged in her lying in. Child-bed is the Time from Delivery, to the Purification of the Woman.

The Water of a Woman in Delivery, is that which flows from the Womb at the Time of Delivery: The Matter of it is the Urine, Sweat, and ſuperfluous Chyle of the Child contain'd in the Amnion, it flows out when the Child, by kicking, breaks the Membranes, and ſometimes a long while before the Child is born; but it is better not to break ſo, for by lubricating the Paſſages, it facilitates the Birth.

The hemorrhoidal Blood is a Portion of Blood abounding, which is carried off by the hemorrhoidal Arteries, and it ſerves in Men as the Courſes in Women.

A Spirit is the thinneſt and moſt agile Part of the Body; the Matter of it is the fineſt, that is, the moſt ſulphureous Part of the Blood: That there is ſuch a thing as Spirit, may be proved; becauſe, if you bind or cut off the Nerve of any Part, ſo as that the Spirit can't come to it, the Motion and Senſe of it preſently periſh.

Spirit is commonly divided into animal, vital, and natural; but I ſuppoſe there is but one Spirit; which, be-

becauſe it performs animal Actions, is animal; which moves when it flows into the medullary Part of the Nerve, which ſerves for Motion; it gives Senſe when it flows upon the Membrane which ſerves for Senſe, and it is vital as it performs vital Actions, and natural as it performs natural Actions; and ſo the reſt without any ſpecific Diſtinction. Animal Spirit is generated in the Head only, by Separation from the Blood when it forces thro the Branches of the carotid Arteries, upon the external Subſtance of the Brain and *Cerebellum*, that is more lax than the reſt; preſently the fineſt Particles recede from it into the Pores of the Brain and *Cerebellum*.

The Spirit makes its Excurſions from the Brain three ways: Firſt, By the Command of the Mind. Secondly, 'tis expell'd by the Contraction of the Heart, that forces the Blood upon the Brain and *Cerebellum*; and new Spirits being preſently ſeparated from it, force by the wole Diaſtole of the Brain, and partly by the Syſtole, the animal Spirits previouſly exiſting in the Brain, into the Beginning of the Nerves; and this Motion of the Spirits is moderate and ſlow, and thereby the Tenſion of all the Muſcles is equal; and hence it is manifeſt, why by every Pulſe there is a Concuſſion of the whole Body, tho this may alſo proceed from the Blood continually thruſt into the Arteries. 'Tis manifeſt alſo, why one Arm being cut off, the other grows ſtrong thereupon, and why to one of two antagoniſt Muſcles the other is convulſively drawn, and which way it is drawn, it carries the Part with it: *viz.* becauſe then the ſaid Parts are puffed up and extended with a greater Quantity of Spirits. Thirdly, The Spirit flows from the Brain when any Part is irritated; for then, by the Motion of the ſmall Fibres of the Nerves, the Pores in the Brain are opened; and ſo in Reſpiration, in the Motion of the Heart, in the periſtaltic Motion, and the like; where-

in there is a certain natural Irritation, and ſo it flows when ſome Member being tickled or irritated, is ſometimes otherwiſe drawn, but then the Irritation is preternatural. But by reaſon of ſuch an Apertion of the Pores of the Brain, this Efflux of Spirits is ſuch, that it does not only fall upon the Nerves of the Part irritated, but alſo upon the neighbouring Nerves; and this is the chief Cauſe of Sympathy, which is obſerved in divers Parts; for Inſtance, betwixt the Reins and Stomach, by reaſon whereof, thoſe being irritated, vomiting is occaſion'd; and ſo betwixt the Colon and the Stomach, as when that is affected the Patient vomits.

The Spirits ſerving involuntary Actions, come chiefly from the *Cerebellum*, and the medullary Furrows from the *Cerebellum*, to the Nerves of the wandring Pair, ſhew this; and this is the Reaſon why, in an Apoplexy, the Pulſe and Reſpiration do not quite ceaſe, which is partly performed by thoſe Nerves.

The Spirits, in their natural State, being about to cauſe Motion, are not fired like Gun-powder in the Brain, or exploded thence: For if ſo, Motion cou'd not be reſtrain'd at any Time when we wou'd.

The Spirit conduces ſomewhat to the Nutrition of the Parts, by ſeparating their Fibres, and the Sides of the Pores from one another, and ſo by making way for the Blood.

CHAP. V.

Of Parts in general.

A Part is a Body cohering to the Whole, fitted for the Function and Uſe of it; I do not add, joined by the common Life, as ſome do, that they may ex-

exclude the Hair, Nails, Humours, and Spirits, which are all truly Parts; for as to the Hairs and Nails, they ſhew Life as other Parts do which are nouriſhed, and they grow with all Dimenſions, according as other Parts do, by receiving Nouriſhment inwardly, and by applying it to Parts that are deficient, and not only by placing it at the Root, for the Nails have ſmall Arteries, and the Hairs are hollow, and for the moſt part triangular, as the Microſcope ſhews, and in the *plica polonica* they ſweat out Blood: It matters not that the Hairs grow upon tabid People, and on ſuch as are dead, for in them there is a Diſſolution or Colliquation of the Body, which makes the Hairs grow moſt, by yielding an agreeable Nouriſhment, *viz.* a fat Vapour exhaling from the Body, as appears from the Inflammability, the fat Fume, and Odor of them; alſo from that oyly and clammy Matter that ſticks to the Hairs, if they are not frequently cleans'd. Laſtly, They are profitable; for, by keeping the Pores of the Skin open, they conduce to the Expulſion of a ſooty Excrement, as when a Stick is fixt in the Earth, the Earth about it is dryer. On the Eye-lids, they defend the Eyes, and thoſe on the Head defend it, and the like. The Nails are to ſtrengthen the Fingers, and render them capable to apprehend ſmall things.

But the Humours and Spirits do not grow, do not live, nor increaſe vitally, but only by the Appoſition of new Matter, as Rain-water is increaſed in a Tub, and yet notwithſtanding the Humours are Parts; and indeed, the moſt noble and moſt neceſſary, as well as the watry Humour of the Eye, which almoſt all allow to be a Part, tho it is not nouriſhed and grows.

All the ſolid Parts are of themſelves white, as appears by the waſhing and Maceration of them in Water, whereby they put off the Tincture of the Blood, with which they are all nouriſhed.

First, Parts are divided into fluid and ſolid; the fluid are the Blood and Spirits, the ſolid all that are diſtinct from them.

Secondly, They are divided into organic, and inorganic.

An organic Part is a Part which requires a ſpecial Conformation, for performing the Action it is peculiarly deſign'd, as the Eye, Ear, Noſe, and the like.

An inorganic Part is a Part which does not require a ſpecial Conformation for performing the Action it is peculiarly deſigned, as ſimple Fleſh, a Membrane. I ſay, the Action for which it is peculiarly deſign'd, becauſe, as to the common Actions, in all the Parts, for inſtance Nutrition, no determinate Conformation is required.

Thirdly, A Part is divided into Principal and Miniſtring: The principal Part is that which beſtows ſomething on the whole Body, that is abſolutely neceſſary to Life. The miniſtring Part is that which does not beſtow any thing on the whole Body that is abſolutely neceſſary to Life.

The principal Parts (at leaſt among the Solids, for among the Fluids, Blood and Spirits are ſuch) are the Brain, which beſtows Spirits on the whole Body, and the Heart, which beſtows Blood on the whole Body; for if the Heart ſhould not give Blood, the Brain would preſently ſuffer an Eclipſe of all its Actions, and other Parts could not live without this; and if the Brain ſhould not ſupply the Heart with Spirits, whereby it is ſucceſſively conſtringed, Death would ſoon follow. The other Parts miniſter, eſpecially thoſe which carry, for inſtance, the Veins, Arteries, and Nerves: The Stomach, Liver, Lungs, and Stones, are falſly accounted by ſome, principal Parts, for they do not ſupply any thing that is abſolutely neceſſary to Life; for we live many Days faſting, or only with nouriſhing Glyſters, and divers know how

to

to ſtop their Breath a great while, and the Liver ſupplies no more than other Parts, and the Teſticles, tho they make Life more perfect, yet are not abſolutely neceſſary to Life, as is evident in Eunuchs and Geldings.

Fourthly, A Part is wont to be divided by the Schools, into ſimilar and diſſimilar. A ſimilar is ſuch an one whereof all the Parts appear, at firſt View, of the ſame Subſtance. A diſſimilar is ſuch an one whereof all the Parts do not appear, at firſt View, of the ſame Subſtance. I ſay, at firſt View, becauſe otherwiſe, many that are wont to be reckon'd ſimilar, are not ſuch, for there are very few wherein you ſhall not obſerve a diverſe Subſtance.

A Bone, a Cartilage, a Fibre, a Membrane, the Cuticle, Skin, Hair, Fleſh, a Tendon, a Gland, Fat, a Nerve, an Artery, a Vein, lymphatic Veſſels, the lacteal Veins, and the like, are counted ſimilar Parts.

Fifthly, a Part is divided into ſpermatic, ſanguine, and mixt; a ſpermatic Part is wont to be defined a Part, whoſe Matter is wholly, in its firſt Formation, Seed. A ſanguineous Part is a Part, whoſe Matter is wholly, in its firſt Formation, Blood. A mixt Part is a Part, which is made, in its firſt Formation, of an equal Portion of Blood and Seed. I ſay, in its firſt Formation, becauſe it is certain, that in the adult they chiefly conſiſt of Blood, wherewith they are all nouriſhed.

A Bone, a Cartilage, a Nerve, a Fibre, a Tendon, a Membrane, an Artery, a Vein, the Marrow of the Brain, the Hairs, Nails, and the like, are counted ſpermatic: Alſo the fourfold Fleſh, *viz.* the Fleſh of the Muſcles, which is generated of Blood, lightly concreted, and is red and fibrous: The Fleſh, or Parenchyma of the Viſcera, which is the proper Subſtance of each of them, as of the Reins, Spleen, Liver, and Lungs; the Veſſels whereof it ſtrengthens, and fills up their

their void Spaces, the particular Fleſh of every membranous Part, as that of the Stomach, Inteſtines, Womb, Bladder, and the like. Laſtly, the glandulous Fleſh, which conſtitutes the Glands. The Fleſh is counted mixt, but whether all the Parts of it are ſuch, ſo as that ſome of them are only compounded of Seed, and others only of Blood, and others of equal Parts of both, I much doubt.

Sixthly, A Part is wont to be divided, from its Office, into animal, vital, and natural: An animal Part is a Part that is principally deſign'd for the performing animal Functions, ſuch are the animal Spirit, the Brain, ſpinal Marrow, Nerves, Eye, Ear, Noſe, Tongue, with the Palate, the membranous, and nervous Parts, and the like, which conduce to animal Actions.

A vital Part is a Part principally contrived for vital Functions; ſuch are the Heart and Lungs.

A natural Part is a Part principally contrived for natural Functions; Such are the Stomach, Guts, Liver, Spleen, Pancreas, Genital Parts, and the like.

CHAP. VI.

Of a Faculty in general, and of the Species of it.

A Faculty in general, is an internal Principle that formally produces Actions.

Three more general are commonly allowed, *viz.* The animal Faculty, the vital Faculty, and the natural Faculty; but I allow only two of them, *viz.* the animal Faculty, and the natural, as every Action that is not animal, is truly natural.

An animal Faculty is a Faculty producing animal Actions: This is wont to be ſubdivided, as the animal

mal Action, into the ſenſitive, appetitive, and motive Faculty; and the ſenſitive again into external and internal: But all theſe do not differ really among themſelves, and *a parte rei*, are the very Soul, conſidered as the Efficient of this or that Operation.

The natural Faculty is a Faculty producing natural Actions: It is as various as natural Actions are, and is *a parte rei*, Blood and Spirits, and other Diſpoſitions of the Parts, as to Magnitude, Figure, and the like, as they produce natural Actions.

CHAP. VII.

Of Action in general, and its Species, but eſpecially of the internal and external Senſes.

ACtion in general is a certain Operation, which is produced in us, either by the Mind or Body: It is divided into animal and natural. An animal Action is an Action that is produced by the Soul, and is fivefold, *viz.* the Underſtanding, the Will, Senſe, ſenſitive Appetite, and animal Motion.

Senſe is twofold, external and internal. Internal is threefold, *viz.* common Senſe, Fancy, and Memory. External is fivefold, *viz.* Sight, Hearing, Taſting, Smelling, and Touching.

All theſe animal Actions are not really diſtinguiſhed from the Soul, nor conſequently among themſelves; for the Underſtanding is the Soul, as it independently, from the Body, produces certain Thoughts; and the Will is the Soul, as without Dependence on the Body, it exerciſes thoſe Affections, which we call the Operations of Will; and the Senſe is the Soul, as it knows ſome things by means of a corporeal Organ; and it is internal, if the Organ of it is the Brain, and external if

if any other Part be the Organ: It is Sight, if the Organ of it be the Eye; and Hearing, if the Organ of it be the Ear: It is the common Senſe, as in the Brain, but eſpecially in the middle Part of the *Medulla oblongata*, it perceives whatever moves the Organs of the external Senſes; this is only converſant about things preſent. It is Fancy or Imagination, as it perceives ſenſible Objects at a Time wherein they are not perceived by the external Senſes, and forms Images and Repreſentations of them, otherwiſe called Phantaſms. It is Memory, as by the Footſteps of the Spirits impreſſed upon the Brain, it is determined for Remembrance. Laſtly, The ſenſitive Appetite is the Soul, as upon occaſion of a certain Motion of the animal Spirits in the Brain, it is diſpoſed to have theſe Affections we call Paſſions, for inſtance, Love, Deſire, Hope, Fear, Hatred, and the like: The Action alſo, whereby the Soul moves the Spirits, is really the Soul it ſelf.

CHAP. VIII.

Of animal Motion, and of the Species of natural Action.

ANimal motion is a motion performed by the Will, whereby the animal Spirits which always run about the Brain are in readineſs for an influx, and preſently flow into the beginnings of the Nerves, and there protrude the Spirits previouſly exiſting to the Muſcle, which blow up the Fibres of it, and ſo make it ſhorter and more compact; and ſo the Member into which it is inſerted is moved.

Natural Actions are various: The chief are the motion of the Heart, the Pulſe, the Circulation of the Blood, Reſpiration, Hunger, and Thirſt, Chylification, Sanguification,

fication, the periſtaltic Motion, Nutrition, Accretion, and Generation.

The motion of the Heart is Muſcular; for it is conſtringed on every part by the duct of the Fibres, it is leſſened and grows hard in its motion, in the ſame manner other Muſcles do. It is two-fold, *viz.* Dilatation or Diaſtole, in reſpect of which the Heart is meerly paſſive; and Contraction or Syſtole, which is the action of the Heart.

Both the Auricles of the Heart together, as the Ventricles of it, have their Syſtole and Diaſtole; but the Syſtole of them is the Diaſtole of the Ventricles; and ſo on the contrary. The Diaſtole of the Auricles does not ſo much depend on the rarefaction of the Blood, as the quantity of it; for the Blood is forced into them by great Veins. The Diaſtole was before the Syſtole, or otherwiſe there would have been no Syſtole; and it partly depends upon the quantity of the Blood, and partly upon the fermentation and rarefaction of it by ſome ſubtile matter in the Heart, whereby the ſides of the Heart are expanded. The Syſtole of the Heart is made by the influx of the Animal Spirits.

The Pulſe is an alternate dilatation and conſtriction of the Artery, by reaſon of the Bloods being forced into the Arteries. There are at leaſt two Thouſand Pulſes in an hours time, in every healthy Man, as any one may find by numbering them; but they are much altered by the Paſſions of the Mind: They are quick in People that are angry, and in thoſe that are chearful; and when we are labouring and running: They are ſlower in ſuch as are ſorrowful fearful, and the like. In Children the Pulſe is quick, becauſe the Heart is tender, and ſoon irritated, and their Arteries are eaſily dilated, and their Blood is thin, and ſoon rarifies.

The Circulation of the Blood is a motion whereby the Blood continually flows thro' the Arteries from the Heart, and returns to it again by the Veins. This

Circulation

Circulation of the Blood is ſo obvious, that none needs doubt of it; for in bleeding in the Arm, a Quart of Blood, yea, the whole Maſs may be drawn away, and it cannot be ſuppoſed that ſo much Blood was contained in the Arm. Circulation alſo is manifeſt from the Valves of the Veins, which are ſo diſpoſed as to remit the Blood to the Heart, but not on the contrary.

The manner of Circulation is as follows; the Blood is carried from the *Vena cava*, aſcending and deſcending, to the right Auricle of the Heart, and thence to the right Ventricle of the Heart, and after it has been rarified in this Ventricle, it is conveyed into the Artery of the Lungs, and from thence into the Vein of the Lungs, and the left Auricle of the Heart, and ſo into the left Ventricle of the Heart, and then, after another Rarefaction of it there, it is driven into the Arteria Aorta aſcending, and deſcending, and diſperſed thro' the whole Body; and from thence again it is carried as before, thro' the correſponding Branches of the *Vena cava*, into the right Auricle of the Heart immediately, by Inoſculation of the Branches, and Tranſudation from the Artery, into the adjoyning Vein, or mediately thro the middle Fleſh, betwixt the veiny and arterial Branches, and thro' the Sinus's and their Branches in the Brain, where the Blood is abſorbed from the Carotide and vertebral Arteries; and from theſe it is carried to the Jugulars.

It is manifeſt that the Blood circulates thro' the Fleſh, becauſe, when it is preſſed, it grows white, the Blood then flying away; but when that returns, it looks red as before. Moreover, in bluſhing, the Face looks red, the Blood flying to it. The Blood enters the Fleſh by the fine ſimple and porous Tunics of the capillary Arteries, or thro' the Extremities of them.

In a Fœtus the Blood is otherwiſe circulated; namely, in part, from the *Vena cava*, thro' the *foramen ovale*,

vale, it paſſes into the Vein of the Lungs, nor does all paſs thro' the right Ventricle of the Heart, but enters from the Artery of the Lungs into the Aorta, a membranaceous Tube being ſtretched from that to this, and ſo it does not paſs again thro' the left Ventricle of the Heart. Another part goes the ordinary way. This other Motion of the Blood is rather in a Fœtus than thoſe that are born; in whom, after ſome Days, the ſaid Paſſages are ſhut.

The End of Circulation is the Nutrition of the Parts, the heating of the Body, and the Generation of the vital and animal Spirits, and to preſerve the Blood from Coagulation.

A certain Time cannot be ſet for the Circulation of the Blood, for it is leſs in hot People than in cold; becauſe in theſe, by reaſon of a quicker Rarefaction of the Blood, the Heart is ſooner irritated to conſtriction, whereby the Blood is driven out. The Time is alſo leſs in ſuch as are in Motion, than in thoſe that are quiet; becauſe in ſuch, by a Contraction of the Muſcles, the Veſſels are, by turns, more ſtraitned, and the Blood flows quicker. *Lower* thinks the Blood circulates in an Hour. The Quickneſs of the Circulation of the Blood appears hence, *viz.* if one of the Carotide Arteries be only cut, all the Blood will flow out in the 12th. Part of an Hour, and if ſo, how ſoon would it run out if the Aorta were cut?

Reſpiration is a Motion, whereby the Air is alternately drawn into the Lungs, and expelled out: It conſiſts of Inſpiration and Expiration. Inſpiration is partly made by the Dilatation of the Breaſt, and partly by the elaſtick Force of the Air, and partly by the Preſſure which it has from the Weight of the incumbent Atmoſphere. The Breaſt is dilated chiefly by the internal and external intercoſtal Muſcles. Expiration is made by the Conſtriction of the Breaſt and Lungs, alſo by the Heat and Rarefaction of the Air in the Lungs.

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Reſpiration is a ſpontaneous Action, becauſe it is perform'd when we know nothing of it, but it is in ſome ſort voluntary, becauſe we can quicken or retard it as we will.

The chief End of Reſpiration is Voice; to perform which there is need of Air: Beſides, by this means ſome fuliginous and aduſt Particles are carried off. Thoſe whoſe Lungs do not move freely, as crooked People, and the like, are ſubject to Conſumptions; becauſe their Lungs not being ſufficiently dilated and contracted, cannot well free themſelves from the fuliginous Vapours of the Blood, and other acrid and groſs Particles, upon which account they are ſubject to Obſtructions, and at length to Corruption.

Divers can continue under Water a notable while without breathing, becauſe they know how to fill themſelves with Air before, and becauſe they are left hot; but ſome ſay that they have a way of putting their Hands to their Mouth, and ſo to ſeparate the Air from the Water.

Hyſteric Women are ſaid to live a long while without breathing, yet I ſuppoſe they do breath, tho the Standers-by do not perceive it, or at leaſt, the Air paſſes of its own accord, into their Lungs, and out again, and this perhaps may ſuffice for them.

The Motion of the Brain is the conſtant Motion of it made alternately by the Syſtole and Diaſtole, according to its Subſtance, and independent from the Meninges.

Hunger is a troubleſome Senſe of Vellication in the Stomach, whereby we are diſpoſed to crave for ſome ſolid thing to take it off. This Vellication proceeds from an Acid in the Stomach.

We are more hungry in the Winter than in the Summer; becauſe then the Ferment of the Stomach is more acrid, and, by reaſon of leſs Tranſpiration, more plentiful.

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That an Acid is the Cauſe of Hunger is proved, becauſe Acids increaſe it, and reſtore it when it is loſt, and thoſe things take it away, which deſtroy or attemperate an Acid; for inſtance, Crabs-eyes, Harts-horn calcined, Pearls, fat things, Spirit of Wine, and the like: If Hunger be continued long, it at length leſſens of its own accord, becauſe the Acid is dried up, or overwhelmed by other Humours drawn from the Stomach.

Some think that Hunger is occaſioned by Suction, whereby the Veins ſuck from the Liver, the Liver from the Guts, the Guts from the Stomach; but this is ſo vain, that it is ſcarce worth refuting, for there is no Suction in the Parts, much leſs ſuch a continual one.

Thirſt is a troubleſome Senſe of Vellication in the Mouth and Jaws, whereby we are diſpoſed to crave for ſome liquid thing to take it off; the Cauſe is Siccity, or a ſalt Humour or Vapour.

We ſometimes put off Thirſt by holding in our Mouths a leaden Bullet, or the like, not becauſe Humidity flows from theſe, but becauſe, by the Motion of them and the Tongue, the ſalivary Ducts are more opened, and the Spittle flows out.

Liquid things take off Thirſt, by moiſtening and diluting the ſaline Particles.

Spirit of Wine quenches the Thirſt of Travellers at the Beginning, by opening the ſalivary Ducts, and by helping the Propulſion of Moiſture, but it afterwards increaſes it.

Chilification is the Converſion of Meat and Drink into Chile; it is chiefly made in the Stomach and Guts, but it begins in the Mouth.

The efficient Cauſe of Chilification is partly Spittle, but eſpecially ſome acid Humour. It is made in the following manner: Hard Meat is firſt chewed by the Teeth, and often turned about in the Mouth by the Motion of the Tongue, and by the Jaws and Lips,

and is moiſtened with Spittle, and then is conveyed to the Stomach, partly by the Weight of it, and partly by the Contraction of the annular Fibres of the Oeſophagus. If the Meat is ſolid, it is ſlowly diſſolved in the Stomach; but if it is liquid, it is ſoon digeſted. The Stomach preſently embraces the Meat on every ſide with its Fibres, and both its Orifices, at leaſt the upper, is ſomewhat contracted, but both of them are ſomewhat ſhut, even when the Stomach is empty, leſt any thing ſhould regurgitate from the Guts to the Mouth, or the indigeſted Meat ſhould fall into the Guts. This Cloſure is made by many carnous and nervous Fibres, wherewith both Orifices are compoſed in the manner of a nervous and carnous Ring, the Meat being included in the Stomach, is impregnated with Spittle, and the acid Humour that ſweats out of the Sides of the Stomach, and ſometime after it is bedewed with the Spittle and an acid Humour, it becomes ſpongy and porous in the Stomach, becauſe now its Parts are fermented by ſubtle Matter; afterwards it appears torn into ſmall Pieces, and at length the whole is reduced to the Conſiſtence of Cream, and then Chylification is finiſhed in the Stomach: But all Meat, and every Part of it does not turn to Chyle in the Stomach altogether: but the ſofter and finer, a little and well chewed is turned to Chyle ſooneſt, *Cæteris paribus*; and therefore that which is eaten firſt may not be firſt digeſted, becauſe it may be groſſer and more viſcid. Things boyled, *Cæteris paribus*, are ſooner digeſted than roſted things, and ſuch things as are not ſmoaked, ſooner than ſuch as are: Milk or Broath is digeſted in the Space of an Hour, and in a great meaſure diſtributed: Bread is pretty ſoon diſſolved, ſo are Pot-herbs and Pulſe; but Fiſh and Fleſh require longer Time: That Meat which is diſſolved, does not ſtay in the Stomach till all be ſo, but that which is firſt diſſolved is firſt conveyed to the lower Orifice, and tranſmitted thro' it,

it. That this is ſo, the opening of many Dogs after eating, makes appear, and we judge that it is ſo in Men; but ſeeing Chylification is ſo various it cannot be limited to a certain Time, for ſome Peoples Stomachs are ſo ſtrong, that the Chyle is perfected in in three, four, or five Hours at moſt; whereas on the contrary, the Stomach of ſome is ſo weak, that eight, ten, or thirteen Hours are required to perfect Chylification: But generally ſpeaking, ſeven Hours are ſufficient: But the certain Sign of Chylification is the craving after more Meat.

A further Chylification and Fermentation are made in the Guts; for firſt, the Chyle carries to the Guts from the Stomach, the digeſtive Humour well mixed with it, and new Spittle, and an acid Humour, continually flow to the Stomach, and ſo a new ferment of it is continually generated, and paſſes from the Stomach to the Chyle expelled; yea, it is probable, that ſome acid Humour continually flows from the Meſeraick Arteries, as in the Stomach, upon all the Guts that are near it.

Digeſtion is better made in the Night when we ſleep than in the Day when we are awake, at leaſt the Aſſumption being equal, and other things alike; for in Sleep, the Blood and Spirits, being not ſo much carried to the external Parts of the Body, the Stomach receives more Acid and Heat, and is the more nearly contracted, and ſo the better embraces the Meat; and conſequently the Supper, which is contrary to Cuſtom now adays, ought to be a fuller Meal than the Dinner; and tho' the Time betwixt Dinner and Supper, is leſs than betwixt the Supper and the next Days Dinner, yet you muſt know, that that which is eaten at a large Dinner, is often not fully digeſted before Supper, and ſo the Stomach has a double Task.

Chylification is alſo better in Winter than in Summer, and therefore we are ſooner hungry in Winter,

we eat more, and grow fat; and this Reaſon confirms, becauſe in Winter the Acid of the Stomach being leſs reſolved, abounds more.

Sanguification is the Converſion of Chyle into Blood; this is done in the whole Body, but eſpecially in the Heart, and in the left Ventricle of it, wherein the Particles of Chyle are much rarified and agitated with the Particles of the Blood.

The Cauſe of Sanguification is our Heat or natural Fire, which remaining after the foregoing Fermentation of the Blood in the Heart, inſinuates it ſelf preſently into the Pores of the other Blood coming into the Heart, mixed with the Chyle, in the Paſſage whereof, when it meets with ſome Particles that diſagree with it, Fermentation ariſes among the Particles of the Chyle, and with the Blood in the Heart and Arteries, whereby they are leſſened by degrees, rendred flexible, and diſpoſed to Redneſs.

That Heat is the Cauſe of Redneſs, and conſequently, the Author of Sanguification, none will deny, who ſees Quinces, that before were white, Beer, and other things, to grow red by boyling, and that ſome chymical Liquors poured upon one another ferment and become red.

But there are ſome, notwithſtanding, will not have Sanguification to be made by any Fermentation in the Heart, denying that the Blood is ſo rarified and agitated in the Heart by a ſubtle Matter, for theſe Reaſons; Firſt, becauſe in this caſe ſo great a Quantity of Blood would fall upon the Ventricles of the Heart, as would endanger the breaking of them. Secondly, Becauſe the Blood does not ſtay a ſufficient Time in the Heart for ſuch a Rarefaction, and if it were put upon a Fire, it would not rarifie ſo ſoon. Thirdly, that the Heart being pricked, the Blood comes out frothy. To the firſt I anſwer, that ſo much Blood does not enter into the Ventricles, as to fill them with its Quantity; for the Auricles, which

are

are as it were the Meaſures of the Ventricles, are not ſo great; beſides, the fleſhy Walls of them have their Expanſibility, to which, when they are extended, the Heart is irritated, and preſently contracts, and ſo there is no Danger of a Rupture. To the ſecond I anſwer, that it ought not to continue long, becauſe the Blood is in a manner previouſly endued with ſufficient Heat, as we ſee Milk rarified, being removed from the Fire, ſubſides a little, and being put on again, preſently rarifies more; and the reaſon why Blood does not rarifie ſo ſoon on the Fire as in the Heart, is becauſe the ſubtle Matter, whereby it is very apt to rarifie, is loſt, when the Blood is drawn out. To the third I anſwer, that this may be, becauſe ſo ſoon as it comes out of the Heart, much of the ſubtle Matter flies away; and therefore, upon the whole, we ſuppoſe, that Sanguification is perfected in us by Fermentation.

The periſtaltick Motion of the Guts is a Motion whereby the Stomach and Guts are continually and ſucceſſively ſtraightened from the Beginning to the End, and creep amongſt themſelves like Worms. This is proved by our conſtantly ſeeing it in the Diſſection of living Animals. Perhaps ſome will ſay, that this is a Convulſion and preternatural, but I think this ought not to be ſuſpected, becauſe it alſo appears in a Dog, a very ſmall Apertion of the Belly being only made, which may be done by leſs Pain than will cauſe a Convulſion, eſpecially if the Dog be young. Beſides, thoſe annular and carnous Fibres in the Tunicks of the Inteſtines, that have ſo many Nerves, ſhew the ſame; alſo the Protruſion of the Chyle and Fæces thro' the Guts, which would be otherwiſe very difficult, by reaſon of ſo many Turnings and Windings, and ſo be the Cauſe of Putrefaction, and ſlow Nutrition.

This Motion is made by a ſucceſſive Inflation, and Contraction of the annular Fibres, by the animal Spirits, and alſo by the Retraction of the right Fibres.

Nutrition is the Converſion of the Aliment into the Subſtance of the living Body, whereby the living Body, according to all its integral Parts, keeps proportionably the ſame Quantity; and therefore the Reſtauration ought to be preciſely as much, as the Diminution is.

Nutrition is neceſſary to all Animals, not only in reſpect of the Augmentation of their Parts, while they are little Embryo's, but alſo in reſpect of their Conſervation after, during Life; becauſe their Bodies being in a natural Conſumption, or Exhauſtion, would inevitably be ſoon reſolved into their firſt Elements, unleſs the Providence of Nature had ordained a continual Renovation or Reparation of Parts, by Subſtitution, and Aſſimulation of freſh Matter in the room of thoſe Particles diſperſed and conſumed.

The efficient Cauſe of the perpetual Conſumption of our Bodies, ſeems to be what all Philoſophers unanimouſly hold it to be, the vital Heat of the Blood, therein firſt kindled, by the plaſtick Spirit continually renewed by the vital Spirit, and by the Arteries diffuſed to all Parts of the Body, that they may thereby be warmed, cheriſhed, and enlivened. This vital Heat continually glowing within us, and principally in the Ventricles of the Heart, conſiſting in a certain Motion of the various Particles of the Blood, and in ſome Degree, analogous to Fire or Flame, I cannot conceive how it is poſſible for it to ſubſiſt or continue, for ſo much as one Moment of Time, unleſs it be maintained by convenient Fuel, which is thereby unceſſantly fed upon, and by degrees conſumed, for it is of the Nature of all Fire, how gentle, or mild ſoever, to generate and conſerve it ſelf, only by preying upon, and deſtroying the Matter wherein it is generated.

ted. This vital Heat therefore, without Intermission, agitating, dissolving, and consuming the minute and most easily exsoluble Particles of the Body, must be the efficient Cause of the perpetual Consumption of our Bodies; so that in truth we have one and the same Cause both of our Life, and of our Death; and to speak more properly, our very Life is nothing but a continual Death, and we live because we die; for we live so long, as while this internal vestal Heat is kept glowing in the Blood, and when it ceases to glow, either for want of convenient Sustenance, or by violent Suffocation, the Life is instantly extinguished.

The Matter consumed, I humbly conceive to be, for the greatest part, the fluid Parts of the Body, chiefly the Blood and Spirits which are most easily exsoluble, and somewhat, tho' but little of the Substance also of the solid Parts; for Experience teaches, that divers Animals, Bears, Dormice, Swallows, and the like, sleep the whole Winter, without receiving any Supply of Aliment, and yet have all the solid Parts of their Bodies as large and firm, when they awake again in the Spring, as when they first betook themselves to their Dens and Dormitories, and the reason hereof seems to be this, that their vital Heat being all that time calm and gentle, consumes their Blood and Spirits but slowly, and very little of their solid Parts, as a Lamp burns long, when the Oyl that feeds it is much, and the Flame but little and calm. We have Examples also of Leucophlegmatic Virgins; who, from a gradual Decay of Appetite, have fallen at length into an absolute Aversion from all Food, and endured long Abstinence without either Miracle or Imposture, and yet notwithstanding, have not been emaciated in Proportion to the Time of their fasting; whence it is probable, that in our Bodies there is not so rapid and profuse an Expence, or Exhaustion of the Substance of the solid Parts, as heretofore many learn-

ed Phyſicians have imagined to be made by the Activity of the vital Heat.

It is difficult, if not impoſſible, to make an accurate Computation of the dayly Expences of this vital Heat; for ſo great is the Difference among Men, in reſpect of Temperament, Diet, Age, Exerciſe, the Seaſon of the Year, and various other Circumſtances, that a definite Calculation cannot be made of this Diſpenſe, no not in thoſe who keep to the ſtricteſt Rules of an aſcetic Life, weighing themſelves and their Meat and Drink, as *Cornaro* is repored to have done dayly. We may indeed conjecture, from the ſtatic Experiments of *Sanctorius*, that the Expence is great, for inſtance, if fourty Pounds of Meat and Drink be ſuppoſed ſufficient to maintain a Man of middle Stature, ſober and of good Health, for ten Days, and about twenty Pounds be aſſigned to the Excrements voided by Stool and Urine in that Time, the other twenty Pounds may be reaſonably aſcribed to inſenſible Tranſpiration; but ſtill this is meer Conjecture.

As to the Reſtauration, the efficient Principle is certainly the very ſame with the generant or formative; becauſe Generation cannot be effected without Augmentation, and Augmentation is Nutrition: And I conceive, that Life conſiſts in, and depends upon a continual Generation of the vital Spirits out of the moſt ſubtle, active, and volatile Parts of the Blood, and that Nutrition conſiſts in Reparation of what is conſumed by Appoſition and Aſſimulation of conſimular and congenerous Matter. The material or conſtituent Principle I take to be a certain mild, ſweet, and balſamic Liquor, analogous to the White of an Egg, and they are miſtaken, who think that the Parts of the Body, being in Subſtance diverſe, the Parts of the Aliment alſo ought to be equally diverſe, as if Nutrition were really nothing but Selection, and ſimular Attraction of convenient Aliment, and that there were not

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required in every ſingle Part, a Concoction, Aſſimulation, Appoſition, and Tranſmutation of one Matter common to all; for firſt, it is a difficult Queſtion, whether there be in Nature any ſuch thing as Attraction or not, and to prove ſimular Attraction is yet more difficult, ſo that the very Foundation of this Opinion is meerly precarious. Moreover, it is evident, that the Aliment common to all the Parts, is ſimular, not heterogeneous, it being the proper Work of the plaſtic Power ſtill remaining in every Animal, as to form all the various Parts out of the ſame homogeneous Matter at firſt, ſo to augment and repair them all during Life, out of like Matter, by transforming that into the Subſtance of every Part, which is indeed potentially all Parts, but actually none, as out of the ſame Rain-Water all ſorts of Plants receive their Nouriſhment.

As to the manner how this homogeneous Matter is by the plaſtic Power accommodated to the Refection of all the various Parts of the Body; moſt probable it is, that this admirable Work is gradually done by Diſtribution, Appoſition, Affixion, or Agglutination, and Aſſimulation, or Tranſmutation; all which Acts muſt be ſucceſſively performed, before the Operation can be compleat; for the *Succus nutritius* being prepared firſt in the Stomach and Guts, and then in other Parts, to that end ordained, muſt be diſtributed, brought home, and apponed to all Parts, that need Refection; then from Contiguity by Appoſition, it muſt be advanced to Continuity by Affiction or Agglutination, and in fine, made of the ſame Subſtance with each Part by Aſſimulation or Tranſmutation, which is the Perfection, or ultimate Term of Nutrition.

Generation is a Production of Nature, whereby one living Creature is formed in the Similitude of another.

Generation is performed in the following manner, the virile Seed is injected into the Sheath of the Womb, and

and from thence is elevated a certain ſeminal Air or Spirit, which flies thro' the inner Mouth of the Womb, to the Bottom of it, and thence to the Fallopian Tubes, and ſo to the Teſticles or *Ovaria* of the Woman. Some think that the moſt ſpirituous Portion of the Seed is imbibed by the Subſtance of the Womb, and ſo conveyed with the Blood, to the *Ovaria*, to fecundate them: But our way is the eaſier and ſhorter, at the ſame time the Woman, by reaſon of Pleaſure and Titulation, is wont to emit a certain ſerous Humour, which may conduce to Conception, tho' it be not Seed, by diluting and rarifying the virile Seed, and by rendring the Separation of the ſeminal Spirit more eaſie, and by elevating it to the *Ovaria*, and ſo the ſeminal Air being raiſed from the virile Seed, that which is groſs remains in the Sheath, is diſſipated and ſlides out; and that we are generated by this ſeminal Air, and not by groſs Seed, may be proved by Superfœtation, or new Conception in thoſe that are with Child; for in ſuch the Mouth of the Womb is cloſe ſhut, ſo that nothing but a Spirit can paſs. Moreover, this may be proved by ſome that generate, tho by reaſon of the Brevity and Debility of the *Penis*, never caſt their Seed into the Bottom of the Womb, which certainly cou'd not be, if the Air alone of it were not ſufficient for Generation; and do we not ſee that a Cock generates without the Ejection of Seed, and meerly, as I may ſay, by touching the Fundament of the Hen with a moiſtened *Penis*, and yet this Place is far diſtant from the *Ovaria* in a Hen; what therefore can conduce to the breeding of Eggs, may conſequent to the Generation of Men? This ſeminal Air therefore being conveyed from the Bottom of the Womb thro' the Fallopian Tubes, into the *Ovaria*, there inſinuates it ſelf into one Egg or more, as they are nearer to its Entrance, or more diſpoſed to receive and nouriſh it; and hence it is, why all the Eggs are not fecundated

ndated at once, and ordinarily but a few; and why t always at the first Congress. The Eggs are best fe-ndated, when a Woman is neareſt the Time of her ourſes, by reaſon of the greater Poroſity of her omb and Teſticles, whereby the ſeminal Air is the ier received into the Eggs. The Eggs are contain-in membranous Cups like Acorns, and indeed very oſly, ſo that they may be expelled out of them by e Breath only. The fecundated Egg being turgid d rarified by the ſeminal Spirit, can no longer con-in it ſelf in its Cup, but falls from it of its own ac-ord into the Fallopian Tube, and from thence, by ſucceſſive Conſtriction of all the Fibres, it is forced to the Bottom of the Womb.

CHAP. IX.

Of things nonnatural in general.

THings nonnatural are things neceſſary for the Pre-ſervation of Health, but hurt it when ill apply-d; ſuch are the ambient Air, Meat and Drink, Sleep nd Watching, Motion and Reſt, things to be evacua-ed and retained. Theſe things indifferently do good r Hurt, as they are well or ill applyed: But we muſt nderſtand, that what is good for one, may be hurt-ul for another, according to the Nature and Cuſtom n divers People, whereunto much is to be attributed n the Uſe of nonnatural things; yea, the ſame thing ay do good at one time, and hurt at another.

We do not conſider Air here ſimply and by it ſelf, ut as it encompaſſes us, that is, as it has various Cor-uſcles mixed with it, and as it can affect us with hem: But it generally affects our Bodies, either ex-rinſically, that is, by inſinuating it ſelf into the Pores of

of the Skin, or intrinſically being breathed in; and either way variouſly, as it is by it ſelf diverſe, or by being mixed with other things, ſo if there is much Water mixed with it, it may moiſten us much, and if it be very ſubtle, it may heat us much, and if it be mixed with narcotic things, as in ſome places it is, it may make us drowſy, yea, induce a deadly Sleep: If it be infected with a peſtilential Contagion, or with any other ill thing, it may occaſion the Plague, or ſome other Diſeaſe.

It is diſputed by ſome, whether Air or Aliment affects us moſt; but becauſe the manner of both is diverſe, it cannot be ſo exactly judged of, yet it is certain, we are much affected by both, and indeed more continually by the Air, than Aliment; for we can ſcarce continue a Moment without Air, for unleſs it attemperate the Heat of the Blood, it will be ſoon choaked; but we are more ſenſibly and vehemently affected with Aliment, by reaſon of the Groſſneſs and Denſity of it.

If you ask what Air is moſt proper for the Preſervation of Health, I ſay, a pure and limpid Air, that is ventilated with wholeſome Winds, and free from naſty Exhalations, from Carcaſes. and Sinks, and the like; and ſuch an one I judge proper for any healthy Man: But when any Quality exceeds its contrary, it requires an Air that is exceſſive in the contrary, ſo a hot Air is proper for a Man that is very cold, and cold Air for one that is very hot, and for Diverſity of Ages, Diverſity of Air is proper, for with them the Temperament is changed, and therefore with the virile Age, which is moſt temperate and perfect, a temperate Air beſt agrees.

To the Air are to be reduced Winds, Regions, and Stars, for by theſe the State of the Air is much changed. The Wind is nothing elſe than the Air, togegether with Exhalations and Vapours adhering to it, agitated about the Earth, the Wind is uſeful in moving

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the Air about, and thereby preſerving it from Putrefaction, and it diſſipates Filth that is mixed with the Air. Sailers reckon twenty four Winds, ſome twelve, others 16; but the chief of them are thoſe four which are called Cardinal, namely, the North, which is cold and dry, the South, which is hot and moiſt, the Eaſt, which is hot and dry, the Weſt, which is cold and moiſt. The South Wind is the moſt unwholeſome, becauſe it occaſions a Dullneſs of the Senſes, and burthens all the Actions and Parts. The North is alſo bad, next to that the Weſt, but the beſt of all is the Eaſt, eſpecially breathing in a Morning, for then it is purer, becauſe it breaths from a Place where the Sun is. The Weſt is alſo good, if it blow in the Evening.

A Region is a Part of Earth, where there is a great Difference in the firſt Qualities, by reaſon of a more right or oblique Motion of the Sun-beams. Regions are chiefly five, *viz.* the Æquinoctial placed under the Zodiack, the North lying in a Space betwixt the Circle of *Cancer* and the Arctick Pole, the Meridian in the Space betwixt *Capricorn* and the Antarctick Pole, the Oriental and the Occidental.

CHAP. X.

Of Meat and Drink.

MEat is a ſolid and groſs Aliment, that chiefly takes off Hunger; it is ſaid chiefly, becauſe the thinner Part of it may quench Thirſt, as thick Drink may appeaſe Hunger. How great the Neceſſity of both is, and how eaſily we are hurt by them, every one knows.

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All Aliment is either taken from Plants or Animals, but that nouriſhes leſs than this, becauſe this has a Matter more agreeable to ours; namely, of almoſt the ſame Aliment and Chyle, and more agreeable to our Parts and Pores; and therefore eaſier adheres to them. Minerals do not nouriſh, becauſe they have Parts too much diſagreeable to ours, and cannot adhere to them, by reaſon of their Rigidity; but indeed, Chymiſts ſay, that *aurum potabile* protracts Life; but if this be true, it does it upon another account, and not by nouriſhing; namely, by ſtrengthening the Blood, and diſcuſſing its ſuperfluous Humidity, and by raiſing the languid Heat in old Men.

Some Meat is of good Juice, that is, nouriſhes much; ſome of ill Juice; ſome is eaſily digeſted, ſome more difficultly; and ſome is eaſily corrupted in the Stomach, other not, and of thoſe which are eaſily digeſted, and of thoſe which are not eaſily digeſted, ſome are of good Juice, ſome not: All Meat that ſoon diſſolves, ſoon nouriſhes; but all of it does not nouriſh much, becauſe it may be of an improper Juice; for ſuch things as nouriſh much, ought to participate of Groſneſs and Viſcoſity, which, *Cæteris paribus*, are ſlower diſſolved.

Meat of the beſt Juice, of eaſie Digeſtion, and of the feweſt Excrements, is beſt, and the contrary worſt.

Bread is made of various Corn, but the beſt of good Wheat well fermented before, whereof the fineſt is called White-bread, made of the fineſt Meal, the pureſt, ſofteſt, and lighteſt, and freed from all the Bran, and this is moſt nouriſhing. The next Degree is not free from all the Bran, but only from the groſſer. Houſhold Bread has all the Bran and Flower mixed together confuſedly. There is alſo a ſort of Bread that is courſer, which conſiſts more of Bran than of Flower, and this nouriſhes laeſt. Among all theſe Kinds, the

the Houſhold-bread is the moſt wholeſome; becauſe, by reaſon of the Bran joined with it, it does not obſtruct ſo much, and looſens the Belly, and moderately nouriſhes; but the fineſt, and the next Sort, cauſe Obſtructions by their Viſcidity, the courſeſt nouriſhes leaſt, but more or leſs, according to the Bran: This is moſt uſed by poor People, and ſo is Rye-bread, which is harder, black, and offends the Stomach.

Of the Fleſh of four-footed Beaſts, Veal is the beſt, next to that Mutton and Kid; of Fowl, Chicken, Capons, Pidgeons, Patridges; of Sea Fiſh, Cod-fiſh; of River Fiſh, a Pearch, a Gudgeon, a Pike. Of thoſe things that come from Animals, Eggs and Milk are the beſt; of Fruits, Raiſins and Figs: But theſe that are ſaid to be the beſt and moſt healthful, are not good for every body, nor does any agree with every body; but every one muſt find out what beſt agrees with him: For thoſe that have a good Stomach, or labour much, as Country-men, Soldiers, and Sailers, Beef and Pork is beſt, becauſe they want a ſolid and groſs Blood, which nouriſhes much, and does not ſo ſoon waſt.

Fiſh are ſuſpected by many, but undeſervedly; for they make good Blood of a moderate Conſiſtence, and are eaſily digeſted.

The manner in eating ought to be ſuch, that the groſs ought to be eat firſt; for though I ſuppoſe that there is a Confuſion of all things taken into the Stomach, and that the Order of Aſſumption does not continue long, yet the groſſer being taken firſt, may be ſooner worked upon by the Acid of the Stomach. We ought to eat when we are hungry, and when the Stomach is empty; but ſome are hungry when their Stomachs are full, by reaſon of too great Quantity of the Acid, and in this Caſe the Hunger muſt not be taken off by Meats, becauſe it is not natural.

I cannot ſay in general how often we ought to eat in a Day, for ſuch as are cholerick may eat three or four

four times a Day moderately; ſuch as are phlegmatic may eat once a Day, becauſe they bear Hunger better, and do not conſume ſo much Blood. Such as are melancholy may eat twice or thrice a Day. We ought to eat ſo much at a time as will take off Hunger without burthening the Stomach, or ſo much as the Stomach can concoct without leaving Crudities behind it; the Quantity of the Meat is to be varied according to the Conſtitution, Strength, and Age; ſo one Quantity is proper for Youth, another for Age, another for a weak Man, another for a ſtrong Man, another for a healthy Man, another for a ſick Man, another for a cholerick Man, another for a flegmatic Man, and ſuch a Quantity for one that exerciſes his Body, and leſs for one that exerciſes his Mind: But it is better to eat ſomewhat too much than too little; and therefore it is better to indulge the Appetite ſomewhat, for ſo the Stomach will be accuſtomed to bear ſometimes ſmall Exceſſes, and to concoct ſomething more.

And as the Quantity of Meats ought to be adapted to the Conſtitutions, ſo the Quality ought to be ſo too, according to the Diverſity of Tempers, Age, Time, and Cuſtom; ſo thoſe that are hot and dry ought to uſe cooling and moiſtening Diet, ſo Children require more tender Diet than Youths or Men, and a cooler Diet ought to be uſed in Summer than in Winter. Meats boyled ſooner turn to Chyle than roſted Meat; but roſted Meat nouriſhes more, becauſe it more abounds with nutritive Juice, as may be ſeen by cutting it with a Knife; for the hard Cruſt without keeps in the Gravey, which is diſperſed in the Broath of boyled Meat; therefore roſted Meat is moſt proper for Labourers, and boyled Meat for thoſe that live a ſedentary Life.

Drink is a thin and liquid Aliment, chiefly uſed to quench Thirſt. The chiefeſt kind of Drinks are Water, Wine, and Beer. It is diſputed concerning Water,

ter, whether it nouriſhes; but I ſay it nouriſhes; for it is not a ſimple Element, and many Men live pretty well that drink only Water, and ſeem to be refreſhed by it; and we ſee that Water alone nouriſhes a long while, and that Fiſh increaſe, being kept in Troughs; and ſo Plants and Fruits are nouriſhed by Water. There are many Species of Water, there is Rain-water, Well-water, Fountain-water, Lake-water, Snow-water, and Ice-water. The beſt Water is that which is limpid and Sweet, or rather without any Taſte or Colour, ſo that the Goodneſs of Water is to be judged of by the Abſence of Colour, Taſte, and Smell. Some think that the lighteſt Water is beſt, but this is not to be judged of by the Scale; for often ill Water weighs leſs than good; but the meaning is, it ſits lighter upon the Stomach and Bowels. Fountain-water is the beſt, if it be ſtrained thro' good Earth; next to it Rain-water, which is lighter, thinner, and clearer, but is worſe, by reaſon of diverſe Vapours and Exhalations, which are mixed with it. Well-water is very unwholeſome, becauſe it is counted to ſtagnate, and is not agitated by the Rayes of the Sun, and if the Well be covered, it is much worſe That which is taken out of the midſt of a River is better, if it be clear, and if the Stream be rapid. The Water of a Lake is very ill, by reaſon of the Stagnation. Worſt of all is Ice or Snow-Water; for it is very impure and crude. In ſhort, the beſt is the pure, clear, and ſubtle Water; which being ſet on the Fire, ſoon heats, and taken thence, is ſoon cool. Let the Fountain be ſituate towards the Eaſt, and run to the North. The Water which runs on pure Earth is better than ſuch as runs upon Stones.

It is good for hot, fat, and fleſhy Men, and mixed with Wine for ſuch as uſe much Labour and Exerciſe: And tho' it does not nouriſh much, yet it refreſhes, and is a Vehicle for the Food; it excites Appetite, and

opportunely given in burning Fevers, it does good; for it is very contrary to the Nature of a Fever, for it refreſhes and moiſtens the Body; but it is bad for ſuch as have weak Stomachs, and that are troubled with Convulſions. Ill Water is corrected by beaten Pepper, or with Aniſe-ſeeds, and for ſick Men boyl therewith Cinnamon, and the like. Honey-Water or Metheglin has great Vertues, it takes away Thirſt, cures cold Infirmities of the Brain, Nerves, and Joints. It is good againſt Coughs, cuts and expells groſs Flegm, moves the Body, and purges the Paſſages of the Urine.

Wine is expreſſed from the Grape. There are various Differences of it according to the Colour, Smell, Groſſneſs, Tenuity, and Age. Wine is hot and dry; the beſt Wine is that which taſtes rough, and ſweetiſh. Sweet Wine nouriſhes much, is a Friend to the Breaſt, but ſoon increaſes Choler: Rough Wine, on the contrary, is injurious to the Breaſt, and binds much: Fragrant Wine refreſhes the Spirits much, but afterwards it diſorders the Head. Yellow Wine is hotter than white; it is aperitive, and forces Urine. Red Wine ſtrengthens the Stomach, and other Parts, and makes laudable Blood; but if it be groſs, it breeds groſs Blood, nouriſhes more, and cauſes Obſtructions. That which is thin is more aperitive than that which is groſs, it ſooner paſſes, and does not nouriſh ſo much. New Wine is not ſo hot as old, but generates Wind, unleſs it looſen the Belly. Old Wine diſturbs the Head: Rheniſh Wine, by reaſon of its great Tenuity and Crudity, ſtirs up the Humours into a Flux, and ſeparates them from the Maſs, and occaſions the Gout.

Of all the Liquors we drink, Wine may juſtly claim the Superiority; for it is more wholeſome, and by reaſon of its ſubtle and penetrating Subſtance, it mixes better with the Maſs than Water and other Drinks: Beſides, it is very pleaſant and grateful to the Pallate, it reſtores the radical Moiſture, and chears the Heart, and is

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the moſt certain Prop and Maintainance of our Life; and therefore our Fore-fathers called the Vine *Vitis, quaſi vita*, as if it were the Tree of Life: But the Uſe thereof is to be regulated by theſe 12 following Inſtructions; 1ſt. When the Wine is ſtrong and full of Spirit, we muſt always mix Water therewith; 2dly. Never drink Wine after Dinner nor Supper, till the Concoction of the Food be ended; for then it helps Nouriſhment, penetrating more eaſily the Body; whereas at firſt it will hinder Digeſtion. 3dly. You muſt have a care that you do not drink Wine cooled with Snow or Ice-Water, for it is very pernicious to the Brain, Sinews, Breaſt, Stomach, Kidneys, and Bladder. 4thly. You muſt avoid drinking Wine faſting, becauſe it troubles the Underſtanding, occaſions the Cramp, and is exceeding hurtful to the Brain and Nerves. 5thly. It is not convenient to drink a large Quantity of thin Wine after moiſt Fruit. 6thly. If at the ſame Table both ſtrong and ſmall Wine are uſed, begin with the ſmall, reſerving the ſtrong for the laſt, which comforts the Mouth of the Stomach, and helps Digeſtion. 7thly. By how much the Food is more cold and groſs, by ſo much the more need is there of ſtrong Wine: But when the Food is more ſubtle, hot, and digeſtable, let the Wine be weak; and therefore ſuch as feed on Beef and Fiſh are to drink ſtronger Wine than ſuch as feed on Pullets, and the like. 8thly. Such as uſe much Wine, ought not to eat much, for Wine ſerves inſtead of Meat and Drink; and therefore Nature cannot eaſily digeſt them both. 9thly. Wine that is weaken'd with Water is wholeſomer than that which is naturally weak; for the later more eaſily putrifies. 10thly. Such as have a weak Brain and hot Stomach, and dwell in ſultry Countries, ought to drink a little Wine, mixing Water therewith: But if cold, more Wine and leſs Water will not be amiſs. 11thly. You muſt obſerve the Sea-

ſon of the Year, for in Winter drink very ſparingly, but ſtrong Wine; in Summer more largely, but ſmall and mixed with Water. 12thly. You muſt conſider the Age, for as Wine is very bad for Children, ſo it is moſt proper for old Men, ſeeing that it qualifies and allays their cold Complexion; and therefore *Plato* denies Wine to Children, gives young Men leave to drink it moderately, and allows old Men a more plentiful Uſe thereof, ſaying, that young Men, before they are twenty two Years old ought not to drink any Wine, becauſe that will add Fire to their Fire.

Good Wine ought to be clean, pure, and clear; it muſt be of an excellent Odour, for ſuch Wines increaſe the ſubtle Spirits, nouriſh excellently, and breed good Blood; it muſt taſte pleaſantly, but muſt not be ſharp nor ſweet; for if ſweet, it inflames, obſtructs, and fills the Head; if ſharp or ſowre, it hurts the Nerves and Stomach, and begets Crudities.

Wine, if uſed diſcreetly and moderately, does communicate innumerable Benefits, both to Body and Mind; for as to the Mind, it is rendered more ſecure and calm, the Spirits are ſtrengthened, and dilate themſelves, Joy and Gladneſs are augmented, ſad and unpleaſant Thoughts are baniſhed; it clears the Underſtanding, excites the Wit, takes away Melancholy, incourages the Spirits, and enlivens them; it is very nouriſhing, reſiſts Putrefaction, helps Digeſtion, and breeds good Blood, cuts Flegm, expels Wind, provokes Sleep, excites Appetite, fattens healthy Men, opens Obſtructions, concocts crude Humours, and is the *Theriaca magna* of the Ancients.

New Wine is of difficult Digeſtion, offends the Bowels, cauſes Wind and the Bloody Flux.

Old Wine is hot and dry, and the older it is, the more Heat it acquires. The beſt is odoriferous and full of Spirits: It is naught for Copulation, becauſe it dries up the Seed. It is naught for young Men and chole-

cholerick Perſons; but good for old Men, eſpecially in the Winter.

Beer and Ale are common and familiar Drinks in *England*, and no doubt it is profitable and wholeſome, as Experience ſhews: But the different Preparations, or Brewing thereof, make no ſmall Difference in the Drink. The Difference of Waters alſo, whereof it is made, is greatly to be conſidered; therefore, according to their Natures, you muſt judge of the Drink; alſo the Difference of the Corn or Grain is to be conſidered; as Drinks made of Wheat-malt nouriſh moſt. Some People mix Wheat and Barly together: Others mix ſome Oats with Barly for Malt: Generally in Ale are uſed no Hops, or leſs Hops than in Beer; therefore Ale is more nouriſhing, and looſens the Belly.

Cider is a cold Liquor, it is very pleaſant indeed, but is windy; it is ſaid to be good for the Scurvy. Becauſe Meat and Drink are of ſo great Importance with reſpect to the Preſervation of Health, and Cure of Diſeaſes, as well as for Suſtenance, I ſhall here particularly, tho briefly, diſcourſe of the various Sorts of Meats, Fruits, and Herbs, which are generally uſed for Diet.

Beans Cleanſe and fatten, but are windy, therefore occaſion Cholick Pains, and diſturb the Head. The French is the beſt and leaſt windy.

Peaſe are not ſo windy as Beans, Green Peaſe are very pleaſant to the Taſt, provoke Appetite, are good for Coughs and an Aſthma; but they are injurious to many, by reaſon of their Windineſs.

Rice binds the Body, cures Fluxes, Pains in the Stomach, and Griping in the Guts, but being uſed too long, cauſes Obſtructions and Wind.

Aſparagus is quickly boyled, nouriſhes more than all other Herbs, is good for the Stomach, purges the Breaſt, provokes Urine, and cleanſes the Kidneys from Gravel.

Capers excite Appetite, remove Obſtructions of the Liver and Spleen, kill Worms, and are good for phlegmatic and melancholy People.

Artichokes are pleaſant to the Taſte, provoke Urine, and make it ſtink, as Aſparagus does; but they are windy, and injure the Head and Stomach.

Cabbage looſens the Belly, is good for Stoppage of Urine and other Obſtructions: but it is windy, and cauſes a ſtinking Breath, and increaſes Melancholy.

Sampier beink pickled, preſerves the Stomach, and is good for the Reins.

Lettice is eaſily digeſted, breeds Milk, and provokes Sleep.

Parſly provokes Urine, the Courſes, cleanſes the Reins, and removes Obſtructions and Wind, but is bad for the Head and Eye-ſight.

Garlick is good againſt Poiſon, the Worms, provokes Urine, and is good for a Dropſie and Shortneſs of Breath; but is injurious to the Head and Eye-ſight.

Carrots breed Milk, provoke the Courſes and Urine, and open Obſtructions; but they are windy.

Onions increaſe Appetite, attenuate the Humours, make a good Colour, and increaſe Seed; but they are bad for the Head and Eyes.

Parſnips provoke the Courſes and Urine, and remove Obſtructions; but they are windy, provoke Venery, occaſion the Itch, and breed bad Blood.

Leeks provoke Urine and the Courſes, and expel Wind, they are good for the Lungs and Stomach, but they offend the Head.

Radiſhes provoke Urine, expel Gravel, and increaſe Milk; but they cauſe ſtinking Belſhes and Wind.

Quinces help Digeſtion, ſtop Fluxes and vomiting, and ſtrengthen the Stomach.

Apples comfort the Heart, open the Breaſt, and are pectoral.

Pears

Pears provoke Appetite, and ſtrengthen the Stomach, and looſen the Belly: But Bergamots are the moſt wholeſome, but being eaten before Meals they breed Wind and occaſion the Cholick.

Oranges that are ſweet, eaten before Meals, are good for the Stomach. Sowre Oranges quench the Thirſt, and excite Appetite; but ſowre, or Sevil Oranges bind the Body, cool the Stomach, and contract the Breaſt, and the ſweet increaſe Choler.

Lemons excite Appetite, ſtop vomiting, cut groſs Humours, are good in malignant Fevers, and kill Worms. An Ounce of the Juice drank in Wine expells Gravel: But they cool the Stomach, occaſion the Cholick, and cauſe Leanneſs, and breed melancholy Humours.

Filberts eaten at the Beginning of Dinner are good againſt Gravel; but they are hardly digeſted, cauſe Wind, and Pains in the Head.

Walnuts faſten looſe Teeth, they preſerve againſt Poiſon and the Plague; but they muſt be eaten at Break-faſt, and are good after Fiſh; they kill Worms, and being preſerved, they looſen the Belly, and are pectoral: But they hurt the Throat, cauſe Coughs, when they are dry, and cauſe the Head-ach. The Shade of a Nut-Tree is very injurious; for it ſends out ill Vapours that offend the Head.

Apricocks quench Thirſt, excite Appetite, and provoke Urine; the Kernels kill Worms, and are excellent for the Heart-burning; but they cauſe Fluxes of the Belly, and putrifie quickly, and breed groſs and viſcous Flegm.

Peaches are good for the Stomach, and looſen the Belly. The beſt are thoſe that are odoriferous, well-coloured, and fully ripe, ſo that they come clear from the Stone; they muſt be eaten before Dinner, and good Wine muſt be drank after them; but they ſoon corrupt, occaſion Wind and ill Humours.

The Fleſh that ſticks to the Bone is of beſt Nouriſhment; and Fleſh of the right Side is better than that of the left, and the fore Part is to be preferred to the hinder; becauſe the fore Part is hotter and of eaſier Digeſtion, but the hinder Part is more cold and more groſs; the Fleſh near the Heart is better than that which is farther off; for being ſtrengthened by the Heat of the Heart, it is more fit to nouriſh.

That Fleſh which is dry muſt be boyled, the moiſt roaſted.

The Fleſh which is roaſted is fatter, of greater Nouriſhment, tho' more hard of Digeſtion than boyled, which tho' of leſs, yet is of better Nouriſhment; and therefore more wholeſome. At Dinner boyled Meats are beſt, at Supper roaſted. Fryed and broyled Meats generate nauſeous Humours and Crudities in the Stomach, and are of difficult Digeſtion, tho very nouriſhing.

Lamb breeds good Nouriſhment, is eaſie to be digeſted, and is good againſt melancholy Humours, and is proper in hot weather and in hot Countries.

Beef affords great Nouriſhment to thoſe that labour much, and breeds much Blood.

Veal nouriſhes much, and generates good Blood, and is eaſily digeſted.

Kid is an excellent Nouriſhment, and very eaſie to be digeſted.

Deer are of great and good Nouriſhment, and are good againſt the Palſie and Cholick, and make ſuch lean as are too fat.

Mutton breeds good Blood, makes good Nouriſhment, and is eaſily digeſted.

Brawn made of the Fleſh of tame young Bores is a delicate Meat, having not ſo much excrementitious Moiſture, as Bacon or Pork, but the hard or horny Part is difficultly concocted.

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Rabits are a good Nouriſhment, they conſume the ſuperfluous Moiſture, and Flegm in the Stomach. The Fleſh is whiter, and not ſo dry as that of a Hare; and therefore nouriſhes better, and is eaſier digeſted.

Young Hares are very ſweet and pleaſant to the Stomach, they are good for ſuch as are too fat, and cauſe a good Colour and Beauty in the Face. The Blood of a Hare fryed and eaten is good againſt the Bloodyflux, inward Impoſthumes, and the Gravel in the Kidneys. The Brains of a roaſted Hare cures the trembling of the Members, and facilitates the Breeding of Teeth in Children.

Bacon and Pork yield a good Nouriſhment, but is injurious to ſuch as live eaſie; they cauſe the Gout, eſpecially the Fleſh of a ſucking Pig, and it cauſes the Cholick, and the Stone in the Kidneys.

Amongſt the Parts of Birds and Beaſts, ſome are better than others; for all the Extremities, as the Head, the Neck, the Feet, the Tail, in reſpect of the reſt, are hard, of little and groſs Nouriſhment, and hard to be digeſted: But better and more ſavory are the Parts about the Wings, Back, and Breaſt.

Butter is good for the Lungs, and nouriſhes well.

Cheeſe that is new, fattens, taſtes pleaſantly, and is not injurious to the Stomach. Cream Cheeſe is moſt wholeſome; but it muſt be eaten the ſame Day it is made in. Cheeſe is only to be eaten to ſhut up and cloſe the Mouth of the Stomach, and we muſt beware we eat not too much of it, eſpecially of old Cheeſe; for it occaſions Thirſt, inflames the Blood, and cauſes the Stone.

Milk is good for the hectic Fever, takes off the Heat of Urine, cures Coughs, and opens the Breaſt, but it is naught for thoſe that are troubled with the Cholick, and the Stone.

Whey is good for ſuch as are of a hot Conſtitution, it quenches Thirſt, and provokes Sleep.

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Olives cleanſe the Stomach from Flegm, and excite Appetite, and ſtop vomiting, the Pickle is good to waſh the Mouth; for it faſtens looſe Teeth, and ſtrengthens the Gums.

Plums purge Choler, extinguiſh Heat, take away Thirſt in feveriſh People, but they injure a cold and weak Stomach, are bad for flegmatick Perſons, and ſuch as are troubled with the Cholick.

Cucumbers are very cooling and refreſhing in the Summer, they provoke Urine, and are good for the Reins and Bladder, and a hot Stomach; but they are apt to corrupt, and to breed ill Humours, if they are not quickly concocted by the Stomach.

Strawberries extinguiſh Heat, take away Thirſt, provoke Urine and the Appetite: But they ſoon corrupt in the Stomach, and are very injurious to paralytic People, to ſuch as are troubled with Convulſions, and thoſe that eat many of them are often ſeized with malignant Fevers.

Melons are very refreſhing, they cleanſe the Body, provoke Urine, quench Thirſt, and excite Appetite, and are excellent for the Gravel and Stone: But they occaſion Wind and Gripes, and being corrupted, malignant Fevers.

Fleſh is more nouriſhing than all other Food, for it is eaſily turned into Blood, and affords great Nouriſhment. You muſt always take notice, that Fleſh, Herbs, Fruits and Corn are to be choſen in high Places, ſuch as are refreſhed with wholeſome Winds, and recreated with the warm Beams of the Sun, where there are no Ponds, Lakes, and ſtanding Waters; for in ſuch Places they are quickly corrupted. The Fleſh of all thoſe Creatures which live in Fens and ſtanding Pools are to be avoided, as Ducks and Geeſe. The Fleſh of Creatures too old are naught, hard, dry, ſinewy, and of ſmall Nouriſhment, and hard to be digeſted; and on the contrary, ſuch as are too young

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overabound with Moiſture, and are full of Superfluities, tho' eaſily concocted in the Stomach.

Salted Fleſh occaſions groſs and melancholy Humours, and bad Juice; for it dries much, and nouriſhes little. Fat Meat is eaſily digeſted, but breeds many Superfluities, and therefore is of ſmall Nouriſhment; it takes away the Appetite, and hinders Digeſtion. The leaner nouriſhes better, and generates fewer Superfluities; and therefore the midling betwixt both is moſt wholeſome.

The Fleſh of Birds is lighter, dryer, and eaſier digeſted than that of four-footed Beaſts, and therefore more agreeable to thoſe that exerciſe the Mind more than the Body, for they are digeſted more eaſily, and breed Blood that is clear, clean, and full of Spirits, and fit for the Exerciſe of the Mind.

The Fleſh of wild Creatures, and ſuch as frequent the Woods is better than that of tame, and the Blood which is bred by eating them, will have fewer Superfluities, by reaſon of much running and Exerciſe, which they are accuſtomed to; and becauſe they live in a more dry Air, eſpecially ſuch as frequent the Mountains, and their Fleſh will keep longer uncorrupted; for they have leſs Fat; and therefore generate fewer Superfluities, nouriſh better, and breed a more ſound Blood; but tame Creatures are more moiſt than wild, by reaſon of their little Motion, and the Moiſtneſs of the Air they live in.

In moiſt Times and Complexions, the Fleſh that inclines to Dryneſs is moſt proper; and ſo on the contrary.

The Fleſh of gelded Creatures is beſt, becauſe it is moſt temperate; for it is more hot than the Female, and colder than the Male.

The Fleſh of black Creatures is lighter and ſweeter than that of white.

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The different Nature of Birds is diſcerned by the Time, the Age, the Food, the Place, and the Air; becauſe at ſuch Time as Birds couple, as well domeſtick as wild Fowl, they thereby grow lean, and feed little. Some Birds are beſt in the Summer, at which time they eat Corn; others in Autumn, becauſe they eat Grapes, Figs, Apples, Berries, and the like. Other Birds are beſt in the Winter, as Thruſhes, Blackbirds, wild Geeſe, Cranes, and all water Fowl.

Some live on VVorms; but moſt eat Corn, as Pidgeons, Doves, and the like: In ſhort, ſome are nouriſhed on Land, others in Rivers, ſome in Lakes, and others in Sea, and a great many Birds feed on Herbs; and it is obſervable, that the Fleſh of wild Fowl has always the Taſte of ſuch things as the Birds feed on, as of Ants, VVorms, Fiſh, Slime, and Mud.

Mountain Fowl are always to be preferred before the reſt; beſides gelding or cutting a Fowl makes it fat and ſweet, as appears in the Fleſh of Capons.

The Fleſh of young Birds is always better than that of old.

A Duck is the hotteſt of all tame Fowl; the VVings and Liver are the beſt; but of hard Digeſtion and groſs Nouriſhment; but is good in cold weather for hot Stomachs, and ſuch as labour much.

Capon nouriſhes better than all other Fowl, and generates good Blood.

Pidgeons afford good Nouriſhment, breed excellent Blood, and are good for old and flegmatic Men. They ſtrengthen the Legs, and cure the Palſy; but they are not good for hot Conſtitutions.

Pheaſants are very agreeable to humane Nature, comfort and ſtrengthen the Stomach, yield great Nouriſhment, and fatten exceedingly.

Hens nouriſh the Body wonderfully, are eaſily digeſted, and breed good Blood: But old Hens are of hard Digeſtion. The Fleſh of a Cock is dryer, hot, and ſulphureous.

Turky

Turky is a good Nouriſhment, the Fleſh is whiteſt and beſt, and excells all others in VVholeſomneſs; for it is eaſily digeſted, and breeds good Blood.

Larks, if they are fat, nouriſh well, and are eaſily digeſted, they are beſt in Autumn, and in VVinter.

Blackbirds nouriſh ſufficiently, when they are fat and young; but they are of hard Digeſtion.

Geeſe; the beſt Parts of them are the VVings and Liver; the Fleſh of young Geeſe affordeth good Nouriſhment, and fattens thoſe that are lean. If you feed Geeſe with Milk, their Liver is much more pleaſant, and digeſts and nouriſhes well enough; but their Fleſh is of hard Digeſtion.

Plovers are an excellent and wholeſome Food, and afford good Nouriſhment; only they are of a melancholy Juice.

Eggs of a fat Hen fed with Corn, and trod by the Cock, and freſh laid, are the beſt; next to theſe is a Pheaſants Egg; but thoſe of a Gooſe or Duck are naught, becauſe they have a ſtrong Smell, and are of hard Digeſtion; and therefore a young Hens Egg is beyond all. Let it be ſmall, long, and freſh. Eggs are of a copious Nouriſhment, they are good for old Men, excite Venery, and open the Breaſt. Potched are beſt.

Young Sparrows afford good Nouriſhment, excite Venery. Mountain Sparrows have a wonderful Vertue againſt the Stone in the Kidneys and Bladder; but are of difficult Digeſtion, and cauſe Melancholy.

Peacocks; the beſt are bred in good Air, young and tender, they nouriſh enough, but are of hard and ſlow Digeſtion, and breed melancholy Blood.

Partridges breed good and ſlender Nouriſhment, and eaſily digeſt, they fatten and dry up the Moiſture of the Stomach, and contribute much to the Preſervation of the Health, and the Fleſh is better than that of a Hen. It is ſaid, they cure the Pox and the Falling Sickneſs.

Sickneſs, being eaten a whole Year together; but old Partridges are of a very hard Subſtance, and of a very bad Taſte, and injure Melancholy People, and bind the Body.

Stares nouriſh well, and as they ſay, cure the Pox, continuing to eat every Day throughout the Year, one Stare and no more. But old Stares are of hard Digeſtion.

Quails are good for melancholy Men, are very nouriſhing and pleaſing to the Taſte: But ſome ſay, they cauſe Fevers, the Cramp, and Falling Sickneſs, wherewith they ſay this Bird is troubled.

Thruſhes nouriſh very well, and are eaſily digeſted, the Mountain Thruſhes are the beſt.

Turtles nouriſh excellently, and are eaſily digeſted; they ſtrengthen the Stomach, and quicken the VVit; roaſted with Cloves and Juice of Oranges are very good in the Bloody Flux, and for all other Fluxes.

Fiſh, in reſpect of Fleſh, are of leſs Nouriſhment, are groſs, flegmatic, cold, and full of Superfluities. The old nouriſh more than the young, and thoſe that live amongſt Stones and Rocks are the beſt. Fiſh are of hard Digeſtion, and the ſign of their Indigeſtion is Thirſt; ſeeing they all cauſe Thirſt if they remain long in the Stomach; nay, ſometimes they corrupt. Concerning Fiſh, you may obſerve theſe following Rules: 1ſt. That all Fiſh ſhould be eaten hot. 2dly. You muſt eat leſs of Fiſh than of Fleſh. 3dly. You muſt not eat them too often. 4thly. You muſt not eat Fiſh after great Labour and Exerciſe; for then they eaſily corrupt; nor muſt they be eaten after other other Food. 5thly. Fiſh and Milk are not proper together, nor are Eggs to be uſed with it. 6thly. Great and ſlimy Fiſh pickled are better than freſh. 7thly. You muſt obſerve, that the clearer and deeper the VVater is, the better are the Fiſh that are nouriſhed therein. 8thly. Sea Fiſh are wholeſomer than freſh-

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water Fish, hotter, and not so moist, and their Nourishment comes near that of Flesh. 9thly. Amongst the Sea and River Fish, those are best which live in rocky Places, next to these in sandy Places, in sweet, clear, and running VVater, where there is no Filth: But those Fish are naught which live in Pools, Lakes, Marshes, and in any still and muddy Water. 10thly. Amongst all the Fish both in Sea and Rivers, those which are not too big are the best, and which have not a hard and dry Flesh, that taste and smell well, are crisp and tender, and have many Fins and Scales. 11thly. Fish are cold and moist; and therefore naught for cold Constitutions, but good for cholerick Men. 12thly. The best way of dressing Fish is to broyl it, to boyl it is the next way, to fry it is the worst.

Eels are of a delicate Taste and good Nourishment, but offend the Stomach, and are of hard Digestion, and being used too often, breed the Stone in the Kidnies and Bladder, and occasion the Gout and Convulsions. In short, whoever eats much of them indangers his Life.

Carps are the most noble of all Fish, and of a very pleasant and grateful Taste, and nourish well, in what manner soever they are eaten.

Crabs are good for consumptive People, they nourish very much, provoke Urine, and cleanse the Kidneys; but they are of hard Digestion.

Lampreys are of excellent Nourishment, excite Venery, and are of a most delicious Taste; but they are of hard Digestion, bad for gouty People, and for such as are troubled with Convulsions.

Pikes nourish very much; but are of hard Digestion.

Oysters provoke Appetite, and they are a very proper Diet in many Cases.

Sturgeon nourishes well, and excites Venery; but is of hard Digestion. Of the Spawn or Row of this Fish Salted

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is made Cavyare, which provokes Appetite, and makes the Drink reliſh.

Lobſters fatten and nouriſh much, and their Broth cures Shortneſs of Breath; but they are cold and flegmatic, and of a hard Digeſtion.

Sprats being boyled as ſoon as they are taken, yield good Nouriſhment and taſte pleaſantly; but they occaſion VVind.

Tench are very nouriſhing, but of hard Digeſtion.

Salmon is pleaſant to the Palate, eaſily digeſted, and affords good Juice.

Soles, Plaice, and Turbet are highly commended amongſt Sea Fiſh; for they have a delicate Fleſh, they yield good Nouriſhment, are not eaſily corrupted, and are eaſily digeſted.

Gudgeons are the beſt of all ſmall Fiſh, wholeſome Aliment, eaſily digeſted, and may be ſafely given to ſick Perſons.

Pearch have ſoft, moiſt, and tender Fleſh, but they nouriſh little, and are full of excrementitious Juice.

Cod-fiſh, if freſh, is of good Juice, and eaſily concocted; but when it is dry, it is of hard Digeſtion, and of groſs Nouriſhment.

Barbels: The little ones are better than the great, and ſuch as are caught in ſtony Places, and not in muddy Ponds; they are very pleaſant to the Palate, but their Fleſh is hard and not eaſily digeſted.

Trouts: The biggeſt are beſt, and ſuch as are bred in ſweet VVaters. The River Trout nouriſhes well, good for young and cholerick, but naught for decrepid and flegmatick Men.

Vinegar: The beſt is that which is made of the beſt VVine. It is cutting, digeſtive, and openining. It is very good to extinguiſh the Heat of Choler and Thirſt. It ſtrengthens the Gums, excites the Appetite, removes Obſtructions, helps Digeſtion, and is good for hot

hot and moiſt Stomachs, and reſiſts Putrefaction; therefore is good in the Plague time: But it breeds melancholy Humours, injures the Nerves, makes lean, offends the Breaſt, and being uſed too much, makes Men look old and withered.

Honey is abſterſive and opening, provokes Urine, and cleanſes its Paſſages. It is good for old and flegmatick Men of a cold Conſtitution, and is pectoral. *Democritus* being asked how a Man might keep himſelf in Health; Anſwered, by Oyl without, and Honey within. It heats the Stomach, moves the Body, reſiſts Corruption, and turns to good Blood; but it occaſions VVind and the Gripes.

Oyl of Olives is very ſweet, and agreeable to Nature. VVhen it is two Years old it is beſt, it ought to be made of ripe Olives.

Oyl of ſweet Almonds is next to it in Goodneſs. Oyl fattens, and a good Quantity of it is excellent to bring up Poyſon by Vomit; but if it be eaten too often, it leſſens the Appetite.

Salt, of all Sawces, is beſt; without which no Food is good. It is put into Victuals for three Reaſons: 1ſt. That thereby the Food may deſcend eaſier into the Stomach. 2dly. To make it more ſavoury. 3dly. Becauſe it reſiſts Putrefaction; conſuming, by its Dryneſs, that Moiſture, whereby Putrefaction might have been occaſioned. It excites the Appetite, and digeſtive Faculty, and prevents nauſeating. It diſſolves, attenuates, and dries up the ſuperfluous Moiſture, provokes the Bowels to evacuate the Excrements, and is therefore uſed in Gliſters and Suppoſitories; but things too much ſalted generate Melancholy and Vapours, breed ill Nouriſhment, dry up the Blood, cauſe Scabbineſs and Itch, Ring-worms, and other ſuch Humours and Breakings out in the Face and Body, and ſtops the Paſſages of the Urine.

CHAP. XI.

Of Sleep and Watching.

SLeep is the Ceſſation of the external Senſes from Operation; the Cauſe of Sleep is the Remiſſion and Subſidence of the Fibres, wherewith the Brain is chiefly formed, ſo that the Motions imprinted upon the Organs of the five external Senſes cannot be duly propagated to the Seat of the Soul, and be known there, as we ſee that a Motion upon a ſlack String of a Violin is not ſo readily promoted, as when it is wond up hard. The ſaid Remiſſion of the Fibres in the Brain ariſes from a Defect or Dullneſs, ſo that the animal Spirits do not ſufficiently expand thoſe Tubes; and ſo after Labour we are inclined to Sleep, by reaſon of a Defect of the Spirits. In like manner, after the taking of Opium or other Narcoticks, we are diſpoſed to ſleep, becauſe they ſeize the Spirits by their volatile Oleoſity. Laſtly, we are inclined to ſleep after eating or drinking; becauſe then the Humidity of the Brain relaxes the Fibres, and perhaps, becauſe the Vapours ſomewhat hinder the Spirits: But ſome, when they drink much, cannot ſleep; becauſe the Spirits are thereby heated and inraged.

All Creatures, by long Fatigues and VVatchings, waſte and conſume themſelves; and therefore ſtand in need of Reſt and Sleep, the Advantage and Good whereof is, that it reheats and corroborates the Members, concocts the Humours, augments the natural Heat, fattens the Body, heals the Infirmities of the Mind, and mitigates and allays Troubles and Sorrows: For whilſt we ſleep, the Faculties of the Mind repoſe themſelves. Sleep alſo facilitates the Digeſtion of the Food which lies in the Stomach, and not only

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concocts it there, but alſo diſtributes it thro' the Parts of the Body; for the natural Heat concenters in the inward Parts, whereby the Food is better concocted. Laſtly, Sleep removes all Laſſitude and VVearineſs, cauſed by overmuch watching; and therefore it is called a Reſt from all Labour.

But we muſt avoid long and ſuperfluous Sleep, which is no leſs pernicious than the other is good; for it chills the Body, weakens the natural Heat, and breeds flegmatic Humours, whence afterwards proceeds much Sloath and Lazineſs, and ſends many Vapours to the Head, which are oftentimes the immediate Cauſe of Rheums and Catarrhs, and is very deſtructive to groſs and fat Bodies. In brief, it is neither good for the Body nor the Mind, nor for Buſineſs. He who ſleeps too much is but half a Man, Sleep rendring him in all Points like a dead Man except his Digeſtion of the Food; for he neither ſees, hears, ſpeaks, or underſtands, and is abſolutely deprived of all Reaſon; which, for the Time, is a perfect Death. Superfluous Sleep moreover, both in ſound and firm Bodies generates Shortneſs of Breath, and is a conſtant Forerunner, and Preparative to an Apoplexy, Lethargy, Palſy, and Numneſs, and it hinders the ſeaſonable Evacuation of the Excrements, cauſing them to remain longer in the Veſſels and Guts. Sleep ought to be taken at ſuch a Time as the Stomach is free from all ſmoaky Food, the Vapours whereof arriving at the Brain, are congealed and made heavy, and then falling down, they obſtruct the Members.

But on the contrary, too much watching, and want of Sleep generate over much Heat in the Brain, cauſe Anguiſh of Mind, and a bad Digeſtion; for by watching, the natural Heat is weakened, which occaſions Crudities.

Sleep is good for flegmatic Perſons; becauſe it concocts the crude Humours, whence afterwards is gene-

rated good Blood, whereby a Man becomes more warm, the natural Heat being increaſed by the Plenty of Blood. Sleep moreover is very uſeful in choleric Perſons, both to quiet the Mind, and to correct the Conſtitution of the Body: But it is moſt of all requiſite in melancholy Men; for by Sleep they acquire a competent Stock of Heat and Moiſture, things very contrary to their Conſtitution.

Sleep, in the Day-time, and after Dinner, is not to be allow'd, unleſs a Man has accuſtomed himſelf to it, or has not reſted well the Night before, or perceives a kind of Laſſitude or Wearineſs thro' all his Limbs; in theſe Caſes he may ſleep after Dinner, eſpecially if his Stomach be weak and cannot digeſt the Food: But poſt-meridian Sleep ought to be taken in a Chair, and not to be above an Hour long.

In long Days Sleep may be taken in a Chair, if the Strength be decayed. Some indeed forbid ſleeping a-days, eſpecially after Dinner: But I think it is not injurious; for ſo the Spirits, weakened by Labour and Cares, are refreſhed; and I cannot indeed ſee why it is worſe than nocturnal Sleep, only it hinders Sleep a-nights, and makes the Nights ſeem long and tedious. The ordinary Time for Sleep is ſeven Hours; for that Time ſeems ſufficient for perfecting Digeſtion, and refreſhing the Spirits: But ſome require more Sleep, ſome leſs; ſo Children require more, and old People, choleric, and dry; becauſe it moiſtens and reſtores the Spirits: But fat and flegmatic People ſhould not ſleep much. Such as labour much ought to ſleep long. It ſignifies little on what ſide you lye at firſt going to ſleep. It is injurious to ſleep with an empty Stomach. Sleeping on the Back hurts the Reins, and hinders Breathing, and furthers Diſeaſes of the Nerves.

The Signs of ſufficient Sleep are a Lightneſs and Agility, which ſpreads its ſelf over all the Body, and chiefly the Brain, whereas Heavineſs of the Body, and un-

unſavoury Belchings, ſignifie that more Sleep is required. To conclude, moderate Sleep reſtores the animal Faculties, helps concoction of the Victuals, and crude Humours, cauſes a Forgetfulneſs of Labour, and of all ſorrowful Thoughts, mitigates the Grief of the Mind, moiſtens all the Members of the Body, reſtores all the waſted Faculties, augments the natural Heat, increaſes radical Moiſture, clarifies and ſtrengthens the Sight, takes away Wearineſs, refreſhing the tired Body, and ſtops Fluxes and Rheums: But if immoderate, it makes the Head heavy, troubles the Mind, weakens the Memory, and all the animal Faculties, makes the Body cold, multiplies Flegm, extinguiſhes the natural Heat, induces a nauſeating, makes the Face pale, and is hurtful to all flegmatic Diſeaſes.

Waking is an Intenſion, or rather an Extenſion of the Soul and Faculties thereof, to all the Parts of the Body; which, when it is moderate, ſtirs up and excites all the Senſes, diſpoſes and orders the vital Faculties to their Operations, expelling and driving forth all the ſuperfluous Humours from the Body; but if immoderate and exceſſive, it generates Diſeaſes of the Head, corrupts the Temperature of the Brain, cauſes Madneſs, kindles the Humours, excites ſharp and acrimonious Infirmities, makes Men look pale and lean, and weakens the concoctive Faculty, diſſolves the Spirits, fills the Head with Vapours, makes the Eyes hollow, increaſes Heat, cauſes Crudities in the Stomach; therefore let Sleep and Waking be always moderate, and if a Man cannot ſleep, let him take at leaſt ſome Repoſe with his Eyes ſhut, which in ſome ſort may ſupply the place of Sleep.

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CHAP. XII.

Of Motion and Reſt.

MOtion is here Labour and Exerciſe, as walking, playing at Ball, running, riding; they excite natural Heat, and conſume all the Crudities of the Body.

Some Exerciſes are ſtrong and weariſome, and others moderate and gentle; the temperate Exerciſe is that which contributes much to the Health; for it corroborates the natural Health, waſtes the Superfluities, enlivens Youth, chears old Age, and hinders Fullneſs, fortifies the Senſes, renders the Body light and agile, ſtrengthens the Nerves and all the Joints; for by Exerciſe all the Parts become more robuſt; it conſolidates the Members, helps Digeſtion, keeps the Paſſages of the Body clear and open, ſo that the ſmoaky Vapours of the Spirits may find a better and more free Iſſue.

The gentle Exerciſes are fiſhing, fowling, and ſuch like Divertiſements, which clear the Mind: And, as moderate and temperate Exerciſe does wonderfully contribute to Health, ſo overmuch Idleneſs is very pernicious.

Frictions are alſo exceeding uſeful; for they hinder the Humours from falling into the Joints, and being uſed in the right Time, that is, when the Superfluities ſhall be evaporated from the inward Parts, they help Digeſtion, recreate the Body, and open the Pores, whereby the moiſt Humours, and Vapours of the Body obtain an eaſier Paſſage; alſo draw the Blood to the outward Parts, and confirm the natural Heat.

Exerciſe is to be uſed ſo long as the Body can bear it, without growing too weary, that is, till you wax hot, having

having a freſh Colour, and begin to ſweat, which, as ſoon as you perceive, change your Cloaths, and dry well all the Members, and put on other Cloaths, and if it be neceſſary, lye a little in Bed and reſt your ſelf, till you ſhall be refreſhed, and recover new Strength.

Shooting with a Bow is counted a proper Exerciſe for the Breaſt and Lungs; bowling for the Back and Reins: But riding on Horeback is the beſt Exerciſe of all, and may ſerve inſtead of all.

The Time for Exerciſe is before Meals, having firſt evacuated the Excrements of the Belly and Bladder; for it is uſually very bad and deſtructive to exerciſe the Body preſently after Meals, and this is the Source of divers Infirmities; but Labourers and Country People, by continual Cuſtom, labour without Injury, as ſoon as the Meat is out of their Mouths.

After violent Exerciſe, one ought to beware of catching cold; for the Motion and Exerciſe having opened the Pores of the Body, the cold eaſily enters therein, bringing along with it Catarrhs, and diverſe other Infirmities.

Friction or rubbing is to be uſed in the Morning, after having been at Stool, which muſt be performed on the extream Parts of the Body; begin at the Knees, and proceed to the Feet, then the Thighs, then from upper Ribs to the lower, then from the Shoulders down the Back, and laſtly, from the Arms to the Hands. You muſt uſe a Napkin or Towel, gently rubbing your Body, till the Skin wax ſomething red. In old Men the Motion of the ſuperiour Members, as the Arms and the Shoulders, is moſt neceſſary, becauſe it diverts and prohibits the Humours from falling into the lower Parts.

It is proper for every Perſon to pull off his Shoes and Stockings himſelf, without the Help of a Servant; for this is ſome ſort of Exerciſe, and ſtirs up the Heat and Spirits. By the by, the binding the Stockings

hard with Garters cauſes ſeveral Pains, and hinders the Heat, Blood, and Spirits from circulating and deſcending into the Joints, upon which account they are weakened, and apt to receive divers Diſtempers.

In the Morning, as ſoon as you are up, rub well your Head, and comb it with an Ivory Comb, from the Forehead upwards to the Crown, then with a rough Cloath or Sponge rub your Head, ; for hereby the Superfluities which are lodg'd there will be expelled, and the Spirits rarified, and the Paſſages of the Head opened, and the Memory and other Faculties of the Mind corroborated, and the Sight ſtrengthened. It is alſo good to ſhave the Beard often, becauſe it chears the Man ; ſo does the waſhing of the Face and Hands; the Eyes are alſo to be waſhed with freſh Water, and the putting the Eyes into cool freſh Water, open, wonderfully clears and purifies the Sight ; afterwards dry them very well with a clean Towel. Take care alſo that your Teeth be very clean, which for want of well rubbing and cleanſing, cauſes a naughty and ſtinking Breath, and the Filth of the Teeth mixed with the Food, breeds Corruption, and renders it putrified : Beſides, rotten Teeth ſend to the Brain an infectious Vapour. It is good ſometimes to waſh the Mouth with Wine.

No Exerciſe is proper after Dinner, but a quiet Compoſure and Stillneſs of the Body is moſt requiſite, eſpecially for an Hour after Dinner, after which a little walking is not amiſs to digeſt and jog down the Victuals to the Bottom of the Stomach. Laſtly, Thoſe Exerciſes are beſt which are performed in the open Air, rather than in Houſes, in the Sun rather than in the Shade.

Thoſe that by ſome Accident or other cannot walk, let them ride, or be carried in a Horſe-litter, ſo that they may in ſome manner exerciſe themſelves before Meals; for by Idleneſs, and overmuch Reſt, all the Fa-

Faculties of Body and Mind are enervated, and Crudities, Obſtructions, and infinite Numbers of Diſeaſes are occaſioned; and Idleneſs is reckoned the chief Cauſe of cold Diſeaſes, it makes Men negligent, loathful, ignorant, and makes the Body fat, lazy, weak, and cauſes a pale Complexion, extinguiſhes the natural Heat, increaſes Flegm, and fills the Body with Superfluities; it occaſions the Gout, Catarrhs, Obſtructions, and the falling Sickneſs; therefore when at any time you are neceſſitated to be in Idleneſs, or by ſome Buſineſs or Incumbrance are forced to abſtain from all manner of Exerciſe, you muſt, inſtead thereof, obſerve a ſlender Diet, and uſe that Food which is of moſt eaſie Digeſtion, and Broaths, which, without any Trouble or Difficulty, are digeſted and diſtributed thro' all the Body, and cauſe a Slipperyneſs of the Belly.

Superfluous Reſt being therefore ſo very injurious, and Sloath and Lazineſs the Cauſe of ſo many grievous Diſeaſes, as we ſee thoſe in Priſons always fall into Diſeaſes, it behoves us to uſe moderate Exerciſe, whereby Superfluities may be removed, the Cauſes of ſo many Diſeaſes. Moreover, we ought not to neglect the Exerciſe of the Mind, for as the Body with Exerciſe is rendred ſtrong and robuſt, ſo the Mind is nouriſhed by Studies, and acquires freſh Vigour; and many, by a continual Exerciſe of the Mind, have freed their Bodies from great Diſeaſes. The Exerciſes of the Mind are Speculation, ſinging with muſical Inſtruments, the Study of Hiſtory, Divinity, and the like; for theſe things delighting the Mind, feed it in ſuch ſort that all the Virtues become more ſtrong, and better enabled to reſiſt and overcome Infirmities; and theſe Exerciſes performed at due Times, that is, after a perfect Concoction of your Victuals, both nouriſh and corroborate the Mind, and render the Memory quick and laſting. But if theſe Exerciſes of the Mind are

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uſed out of ſeaſon, they hinder Digeſtion, and heap up and contract many Superfluities, and occaſion various Obſtructions, and putrid Fevers.

To conclude, *Hippocrates* affirms, that moderate Exerciſe is above all things moſt neceſſary for flegmatick People, and for ſuch as are of a cold and moiſt Conſtitution, and that for hot and cholerick Perſons, Reſt is very fit and commodious. Moreover, all learned Phyſicians agree, that both Exerciſe and Reſt, if moderate, are a ſpecial means to preſerve Health, and prolong Life.

CHAP. XIII.

Of things to be evacuated.

THings to be evacuated and retained are the Excrements of the Belly, Urine, inſenſible Tranſpiration, the Courſes, and the Seed; for theſe evacuated in due Time, and in due Quantity, conduce much to the Preſervation of Health, otherwiſe they injure the Health. The Excrements of the Belly not evacuated in due Time, occaſion cholic Pains, and cauſe ſtinking Vapours in the Stomach and Mouth. Theſe Excrements, in their natural Eſtate, are ſomewhat ſoft, and ſtick together, the Colour is browniſh, and they do not ſtink very much.

The Urine, when it is right, is of a yellow Colour, of a moderate Thickneſs, with or without a Sediment. When there is a Sediment it is white, light, and equal, and the Quantity is equal to the Liquors taken in. When it is retained too long, either by the Fault of the Reins, or of the Bladder, or becauſe the Matter of it is not ſufficiently ſeparated, it occaſions a Dropſy, Fainting, ſleepy Diſeaſes, a Palſy, and the like.

If

If insensible Transpiration be hindred, the Skin becomes filthy, the Itch is occasioned, a Dropsie, a Fever, and the like. Insensible Transpiration is made thro' the Pores of the Skin and Mouth. It is manifest by the inspection of the Breath in Winter-time, when it condenses, when it comes out, that very much is emitted by insensible Transpiration. It also appears by the many drops it makes; also if we touch with the Finger any polished Metal, it will presently be considerably moistened; and if so much be done by so little a part, and in so short a time, how much do we think is evaporated by the whole Body in the space of one day? Yet it does not seem so great, as *Sanctorius* affirms he has found by the *Static* Art; for he would make us believe, that insensible Transpiration alone is greater than all Evacuations taken together; for if the Meat and Drink of one day weigh eight pound, he says, that about five of them flies away insensibly. He says also, that the Urine of one Night is wont to be half a Pint, and the Excrements of the Belly four Ounces; and that forty Ounces at least, are evacuated by insensible Transpiration; so that as much is evacuated by insensible Transpiration in one day, as is carried off by Stool in fifteen.

The Courses ought to flow in Women at Fourteen Years of Age, and in such as are not past Fifty, unless they are with Child, or give Suck; in which cases the cause of the Courses cease; and they ought to flow every Month; and the quantity of them ought to be proportioned to the quantity and heat of the Blood: For a certain quantity generally speaking, cannot be limited; for some have a great many, and some but a few, nor do they continue upon all alike; for some have them two days, some three, some four, some six or eight days. They that have them too much are weakened, are subject to Faintings, and waste. Those in whom they are suppressed become Hysterick, breath

diffi-

difficultly, look Pale, and loſe their Appetites.

Venery, if it be duly uſed, conduces to Health; but when it is immoderate, it emaciates, and weakens the Nerves, Head, and whole Body, diſſipates the Spirits, and wonderfully ſhortens the Life. It is moſt conveniently uſed by ſuch as are ſanguine, and of a full Habit of Body, in the Morning after Sleep; for then the Seed is more elaborated, and abounds more, Digeſtion being perfected, and a Diſtribution being made.

CHAP. XIV.

Of the Paſſions of the Mind.

THE chief Paſſions of the Mind are Mirth, Sadneſs, Anger, Love, Hatred, Shame, Hope, Deſpair.

Mirth is a Delight ariſing from ſome Good, we ſuppoſe we have obtained. This above all the reſt conduces to Health, at leaſt if it be moderate; for in it the Spirits paſs pleaſantly in the Brain, and in all the Nerves: But immoderate Mirth is injurious, and ſometimes deadly.

Sorrow is a Pain ariſing from the Apprehenſion of Ill befalling us. In it the Spirits in the Brain and Nerves move very weakly, and ſometimes a Weight in the Breaſt, Suffocation, and Death it ſelf are occaſioned by it.

Anger is the Deſire of Revenge, upon the Apprehenſion of ſome Injury offered us. In Anger the Spirits are wont to be violently moved in the Brain.

Love is the Deſire of an Object which we apprehend to be good and convenient. In Love both the Blood and

and Spirits, within and without the Brain are moved pleasantly.

Hatred is the Apprehension of an Object, which we judge hurtful or inconvenient. Hatred is Sorrow for the Good, and Mirth for the Ill of another.

Fear is a sinking of the Mind by reason of the Apprehension of some imminent Ill.

Shame is a great Opinion, or Apprehension of Scandal.

Hope is a Desire of some future Good that seems difficult to be obtained; but yet possible.

Despair is an Affection of the Mind arising from the Apprehension of Good, which we judge impossible to be obtained.

The Passions of the Mind have great Power, and do much contribute to the changing of the Body; because they make a Stirring and Motion in the Humours, and in the Spirits. And these immoderate and sudden Motions are raised from the Center of the Body to the Circumference, as Anger, Joy, and the like, or from the Circumference to the Center, as Fear, and the like, from whence proceed great Motions of the Spirits; and therefore we ought carefully to avoid such Passions, seeing they dry the Body, and alter it too much, troubling it and changing it from its natural Constitution; and therefore *Plato* called these the Infirmities of the Mind, *viz.* Anger, Joy, Sorrow, Melancholy, Anxiety, or Anguish, Exclamation, Fury, Violence, Brawling, Contention, Hatred, Envy, Perplexity, Fear, Shame, unpleasant Thoughts, unbridled Desires, Boldness, Incontinence, Importunity, Ambition, Distrust, Hope, Despair, and the like; all which Passions, besides the great Hurt they do to the Body, do also very much offend the Mind; for Anger and overmuch Sorrow afflict the Spirits, dry the Bones, extenuate the Flesh, inflame and burn the Body, putting it into Confusion, out of its natural Estate, whence

whence afterwards proceed many Evils, as Catarrhs and Fluxes in the Joints, and the like: But these Passions, when they are moderate, are sometimes good for Men, and do not a little contribute to their Health: For Example, Anger excites and increases the natural Heat, and oftentimes it is good to be angry, to repair that natural Heat, and therefore, in cold Diseases, it is to be stirred up: as on the contrary, in hot, it is to be avoided. Joy and Gladness strengthens the Digestion, and this is the chief and truest reason why Men, more than all other Creatures, are exposed to Crudities: Because the Beasts, and irrational Animals, tho' they eat to Satiety, nevertheless do not hinder the natural Virtue which concocts the Food. But Men, by diverse Thoughts, and Perturbations of Mind, divert the Virtue of its Operation, and tho' they eat moderately, yet they fall into Crudities, whence proceed many Diseases; and therefore a Man, by all possible means, ought to avoid sad Thoughts, and dolorous Subjects, and all other things which may any ways disturb the Mind; for to have a chearful Mind is good in all Diseases. You must keep your self also from frequent weeping, from great Fury, and from an Appetite or Desire of Revenge; for these things weaken the Brain, and hinder the Digestion, and alter the natural State of the Body; for Fear withdraws the Spirits and the Blood, attracting them inwardly to the Heart, whence the Members grow cold, the Body pale, causing Tremblings, the Voice is interrupted, and the whole Force of the Body is deficient. Many have perished by overmuch Fear and Sorrow.

Rutilius being denyed the Consulship, which he earnestly sought after, suddenly expired. *Marcus Lepidus* also died for Grief, and many have died by Excess of Joy; but none of Anger, and some have died of Shame. For which Cause these Passions of the Mind ought always to be used with Moderation, and chiefly

Joy.

Joy. In short, nothing is more necessary for the preservation of Health, than to live merrily, nor to trouble ones self, or be angry. That Man therefore that loves Health, let him delight in Gardens, frequent green and pleasant Places, let him converse with merry and jocund Friends, with Musick and Songs; for by these things the Spirits are restored, and as the strength of a Man is increased by good Victuals, Wine, sweet Smells, so by Tranquility, by avoiding of Cares and troublesome Affairs, which render a Man sad, and by frequenting merry Companions the Man is refreshed. Likewise it is good to hear and read pleasant Discourses and delightful Subjects. No less pleasant and wholesome it is to enjoy a sweet and clear Air, to walk sometimes in the Fields, to rise betimes in the Morning, than which there is nothing in the World that chears and glads the Heart of Man more, and does also wonderfully contribute to Health. To conclude, in Trouble and Adversity, let a Man defend himself from Dejection of Mind, and in Prosperity from extream Joy.

CHAP. XV.

Of things contrary to Nature.

THings contrary to Nature, or preternatural, are things opposite to the natural Constitution of a living Body. They are three, a Disease, the Cause of a Disease, and the Symptom; under which every thing contrary to Nature is comprehended.

A Disease is a Constitution contrary to the nature of a living Body, whereby all the actions are not rightly performed. This Constitution proceeds from an undue temper, conformation or union of the Parts, whereby

whereby ſome action is performed ill, or at leaſt not rightly modified, and hereby we are rendred incapable to perform all the actions aright. It is ſaid, whereby all the Actions are not perform'd aright; becauſe an obſtruction of all the actions is not required to a Diſeaſe; but it is ſaid to be a Diſeaſe, if any one of them be hurt.

When we ſay a Diſeaſe is a Conſtitution contrary to Nature, it does not include the Conſtitution of old Men and Children, tho in it the actions are not rightly performed; becauſe ſuch Ages are agreeable to the courſe of Nature.

The living Body, and the ſolid and fluid parts of it are the ſubjects of a Diſeaſe.

A Diſeaſe is divided eſſentially into three ſpecies; into a Diſeaſe from an undue temper, or ſimilar; into a Diſeaſe from an ill formation, or organick; and into a Diſeaſe occaſioned from the ſolution of the *Continuum*. It is alſo otherwiſe variouſly divided according to its accidental differences, into univerſal, particular, contagious, not contagious, epidemic, endemic, long, ſhort, acute, not acute, benign, malignant, great, ſmall, ſimple, compound, primary, ſecundary, ſymptomatic, hereditary.

A Similar Diſeaſe, or a Diſeaſe proceeding from an undue temper, ariſes from an inconvenient temper of the firſt qualities, as a Diſeaſe from a hot or cold intemperies of the Brain or Stomach, or the like.

An Organick Diſeaſe is a Diſeaſe ariſing from an ill Formation of the Part. It is fourfold, ariſing from an undue Figure, magnitude, number, and Situation of the Part.

A Diſeaſe proceeding from a ſolution of the *Continuum* is a hurt of the Function of a Similar, or Organick Part. It is fourfold, *viz.* a Contuſion, a Wound, a Fracture, and an Ulcer.

An

An univerſal Diſeaſe is that which affects the whole Body, as Cachexy, Anaſarca, and the like.

A particular Diſeaſe is that which affects only part of the Body, as a Pleuriſie, and the like.

A contagious Diſeaſe is that which is conveyed to another by ſome Effluvia.

Diſeaſes called *Pandemij*, are Diſeaſes of the ſame Species, which invade many at the ſame time, and in the ſame Region.

An Epidemic or Popular Diſeaſe, is a Diſeaſe ariſing from ſome common Cauſe, and ſeizes many at one time and place, but is not reſtrained to one Region, as the Plague, Quinſie, Pleuriſie.

An Endemic Diſeaſe is a Diſeaſe ariſing from ſome common cauſe, that is proper to ſome Region or Regions, as the Scurvy to *Holland*, *Denmark*, *Swedeland*, *Norway*; the French Pox to *India*, the Bronchochele to the *Alpes*, the *Plicæ Poloniæ*, and the like.

Sporadic Diſeaſes are Diſeaſes of different kinds, which invade many at the ſame time, and in the ſame Region, as a Pleuriſie, and Ophthalmia.

From the Time Diſeaſes are ſhort or long. A Diſeaſe is ſhort that ſoon comes to its end; as a Diary, a burning Fever, and the like. A Diſeaſe is long, when it does not come to its end in a ſhort time, as a Dropſie, Palſie, and the like.

A Diſeaſe is Acute, when it comes to its end in a ſhort time with danger. An extream Acute Diſeaſe ends in three or four days at fartheſt; as a Peſtilential Fever, or the like. It is ſaid to be peracute, when it laſts ſeven days.

A benign Diſeaſe is that which has its wonted ſymptoms, as a Tertian Ague; or a burning Fever, that has its ordinary ſymptoms.

A Diſeaſe is malignant, when the ſymptoms are worſe than is uſual.

From Magnitude a Diſeaſe is ſaid to be great or ſmall. The Magnitude of a Diſeaſe may be two ways conſidered. Firſt, with compariſon to the Perſon affected; and ſo a Diſeaſe ſmall in it ſelf may be accounted great, in a weak Man or a Child. Secondly, Diſeaſe is called great which ſoon dejects the ſtrength, and kills; and the greatneſs of it may ariſe from the nobleneſs, or great uſe of the part afflicted.

A ſimple Diſeaſe is an Obſtruction of ſome Vein or Wound, or a cold Intemperies of the Stomach, or the like. A compound Diſeaſe is ſimilar, with organic, ſimilar with common: For inſtance an hot Intemperies with a Wound. Organic with common; for inſtance, the Magnitude of the Foot increaſed with a Wound. Similar with organic and common, as a Wound of the Hand with a great and hot ſwelling.

A Primary Diſeaſe is a Diſeaſe produced by ſome Cauſe, which is not a Diſeaſe in the ſame Body.

A ſecundary Diſeaſe is a Diſeaſe produced by ſome Cauſe in the ſame Body, as the cold Intemperies of the Brain occaſioned by a cold Intemperies of the Stomach.

An idiopathic Diſeaſe is a Diſeaſe proceeding from the proper Vice of the Part, as an Obſtruction of the Reins by a Stone.

An hereditary Diſeaſe is a Diſeaſe imparted to the Child by the Parents, obnoxious to ſuch a kind of Diſeaſe, upon account of the Fault of the Seed, or of the Nutriment of the Child. I ſay obnoxious, for it is not neceſſary the Parents ſhould actually have the Diſeaſe, or that they ſhould ever have it. Perhaps it is prevented by a contrary Courſe of Diet, or the like, it is enough if there be ſuch a Diſpoſition.

The Time of the Diſeaſe is the Time wherein ſome notable Change of the Diſeaſe is obſerved. The univerſal Time is that which diſtinguiſhes the Courſe of the whole Diſeaſe. It is fourfold, the Beginning, Increaſe, State, and Declination; theſe four Times are abſolutely

bſolutely accounted in every Diſeaſe, whether it ends to Life or Death, whether it be cured by Medicines, or not: But theſe Times are wont to be very inequal; becauſe one Diſeaſe runs its Courſe much ſooner than another, and conſequently paſſes all the Seaſons ſooner.

No one dies in the univerſal Declination of a Diſeaſe, at leaſt of that Diſeaſe, whereof that is the Declination; for the Cauſe of the Diſeaſe is expelled and overcome, yet he may die in the Declination by ſome other Diſeaſe joined with it, or coming upon it, or by Defect, or Want of things requiſite to Life.

The particular Time of the Diſeaſe is that which diſtinguiſhes the Courſe of the Paroxyſm. The Paroxyſm is the Exacerbation coming by turns in Diſeaſes. The Period is the Time of Exacerbation and Remiſſion in ſome Diſeaſes. The Type is the Order of Intenſion and Remiſſion: But every Diſeaſe has not a Type or Period, as an Atrophy, Palſy, Eliphantiaſis, and the like; for they continually afflict.

A Relapſe is the Return of a Diſeaſe cured, after a ſhort time.

The Cauſe of a Diſeaſe with Phyſicians, is a thing contrary to Nature, effecting a Diſeaſe. It is divided into procatarctic, antecedent, and continent. The procatarctic Cauſe is the Cauſe that is evident to any one. It is twofold, internal and external. The internal are all the Paſſions of the Mind, Anger, Sorrow, Mirth, Pain, and the like. The external are a Stone, a Sword, a Knife, a Stick, Air, Meat and Drink, and the like.

The antecedent Cauſe is a Cauſe not evident to every one, which being taken off, the Diſeaſe does not preſently ceaſe, ſuch is the Abundance of Blood, which cauſes an Inflammation in ſome Part; being removed by bleeding, the Inflammation does not preſently ceaſe.

The containing Cauſe is that which being taken off the Diſeaſe preſently ceaſes.

A Plethora is too great a Quantity of Blood.

A Cacochymy is an ill Quality of the Blood.

A Symptom is an Effect of a Diſeaſe, as Thirſt of a Fever: A Symptom ought to follow a Diſeaſe as its Cauſe; either nearly or remotely. A Diſeaſe may be alſo a Symptom, ſo is a Fever following an Inflammation.

A Symptom is divided into three general Species, *viz.* The Action Hurt, the Fault of things evacuated and retained, and the Quality of the Blood changed.

The Action is hurt when it is not as it ſhould be. There are three Kinds of Action hurt, *viz.* aboliſhed, diminiſhed, and depraved. The Fault of things excreted and retained is fiveſold, *viz.* of the Subſtance, of the Quantity, of the Quality, of the manner of Excretion, and of the Time of Excretion.

The Quality of the Body changed, is a Quality contrary to Nature, in the ſolid Parts of the Body, flowing from a Diſeaſe: It is ſenſible and inſenſible.

CHAP. XVI.

Of the Signs in general, and of ſome of the Species of them.

A Sign, among Phyſicians, is a manifeſt thing that leads us to the Knowledge of ſomething that is hidden. It is divided into diagnoſtic, prognoſtic, and commemorative; and theſe are ſubdivided into healthy and unhealthy. I do not add neutral; becauſe I think there is no ſuch thing as a neutral Conſtitution; becauſe every one is either ſick or well.

A diagnoſtic Sign is moreover inſeparable and proper, and alſo inſeparable and proper together. The diagnoſtic is that which ſignifies ſomething preſent. The prognoſtic is that which ſignifies ſomething that is future. The commemorative Sign is that which ſignifies ſomething that is paſt. The healthy Sign is that which ſignifies Health preſent, future, or paſt. An unhealthy Sign is that which ſignifies a Diſeaſe preſent, paſt, or to come. An inſeparable diagnoſtic Sign is that which ſignifies ſome Conſtitution, and cannot be ſeparated from it. A proper diagnoſtic Sign is that which agrees only to one. This Sign is truly pathognomonic; for it ſignifies the proper Nature and Eſſence of the Diſeaſe from whence it flows: But it is ordinarily not one ſimple Sign, but a Heap of many together; for inſtance, a pricking Pain in the Side, with a Cough, and Difficulty of Breathing, a Fever, and a ſtrong Pulſe, of a Pleuriſie.

An healthy diagnoſtic Sign is a natural Pulſe, and a natural Urine. An healthy Prognoſtic is the Concoction of the Excrements in Diſeaſes. An healthy Commemorative Prognoſtic is a Firmneſs of all the Actions; for that ſignifies preſent Health. An unhealthy Diagnoſtic is an Hurt of the Action, as a Swelling with Redneſs, and a beating Pain, of an Inflammation. An unhealthy Prognoſtic is ſpontaneous Laſſitude. An unhealthy commemorative Sign is a *Cicatrix*; alſo the Weakneſs of thoſe that recover.

Signs are generally taken from the Cauſes, as the Fountain, or from the Effects; that is, from all thoſe things which any way follow Health, the Diſeaſe, or the Cauſes of it. Some will have the Eſſence of a thing to be added here, and ſo they ſay that a Piece of the Lungs being caſt up, an Ulcer of them is bred, or Part of the thick Guts being caſt out by Stool in a Diſentery, they ſay they know the groſs Guts are affected: But in the Caſes mentioned, the Sign is not taken

from the very Eſſence of the thing, as diſtinct from the Cauſes and Effects, but meerly from the Effects.

The prognoſtic Sign, both healthy and unhealthy, ſerves much for the Honour of the Phyſician; for a ſucceſsful Prognoſtication gives him great Authority, and makes the ſick better truſt him: But he muſt be careful that he be not too free or raſh in his Prognoſtication, leſt he get Diſgrace.

A Diſeaſe may be known by four Signs: Firſt, By the Species of what is excreted, ſo a Diſentery is known by the ſmall Parts of the Inteſtines evacuated by Stool, a ſtony Conſtitution by a ſandy Urine. Secondly, By the Nature of the Place, ſo a Diſeaſe or ill Conſtitution from Worms is known by Pains torturing the Belly. Thirdly, from the Propriety of the Pain, ſo an Inflammation is known by a beating Pain. Fourthly, By proper Accidents, ſo a burning Fever is known by a violent Heat of the whole Body, and by the Blackneſs of the Tongue, and a great Thirſt; a Pleuriſie by difficult breathing, with a Cough and Fever. There are alſo beſides three more Signs that are leſs principal, *viz.* a Proclivity of the ſick to a certain Diſeaſe; ſo an hyſteric Paſſion is known in ſome Women by their Diſpoſition that way. The evident Cauſe foregoing the Diſeaſe, ſo a hot Diſeaſe is known in thoſe that uſe a hot Diet, thoſe things that do Good or Hurt; ſo a hot Diſeaſe is known, by being exaſperated by hot Medicines, and mitigated by cold.

The Cauſe of the Diſeaſe is known chiefly by ſeven Signs: Firſt, By the Temperament, and ſo by a hot Temperament we may know the Cauſe of the Diſeaſe is hot. Secondly, By the Colour of the Skin, ſo by the yellow Colour of the Skin, you may know that Bile is the Cauſe. Thirdly, By the Age, ſo by Old Age you may know the Cauſe is cold; by Youth you may

may know it is hot. Fourthly, By the Species of the Pain; ſo Bile is known by a burning Pain. Fifthly, By the evident Cauſe, ſo by high and plentiful feeding, and a ſedentary Life, you may know that too great a Quantity of Blood is the Cauſe, ſo by a cooling Remedy doing good, you may know that the Cauſe is hot.

The Signs of a Plethora are, a tumid Habit of the Body, an Expanſion and Tenſion of the Veins, a red Colour of the whole Body, eſpecially of the Face, a full Pulſe, an Unfitneſs for Motion, a ſpontaneous and tenſive Laſſitude in the whole Body, a voluptuous Life, Suppreſſion of uſual Evacuations, and the like.

The Signs of Cacochymy are diverſe, as the Species of it are diverſe, the chief whereof are choleric, melancholy, flegmatic, ſanguine, and ſerous, and they are in the whole Body, or only in Part of it. The Signs of a bilious Cacochymy, are a yellow Colour of the Skin, eſpecially of the Face, an high colour'd Urine, quick Pulſe, choleric Excrements, choleric Puſtles, a Pricking in the Habit of the Body, an hot and dry Diet, Relief by cold and moiſt things, and the like. The Signs of a flegmatick Cacochymy are, a white Colour of the Skin, a ſoft and tumid Habit of the Body, flegmatic Excretions, a pale Urine, much Sleep, Relief by hot and dry things, a cold and moiſt Diet.

The Signs of Wind are, a Tenſion and Tumour without Gravity, which does not pit upon preſſing with the Finger, a wandering Pain, an Eruption, or belſhing of Wind, a flatulent Diet, and the like.

The Part affected is known by five Signs. Firſt, By the Action hurt, ſo a Diſorder of the Ear is known by Deafneſs. Secondly, By the Situation of the Diſeaſe, ſo you may know the Spleen is affected by a hard ſwelling on the left Side. Thirdly, by the Propriety of the Pain, ſo you may know a Membrane is affected by

a pungent Pain; you may know a Parenchyma is affected by a heavy Pain. Fourthly, By proper Accidents, ſo by Anxiety you may know the Stomach is affected, and by fainting you may know the Heart is affected. Fifthly, by things that are evacuated, as you may know the Lungs are affected by ſmall Particles of the ſpongy Fleſh caſt up by coughing; you may alſo know the Bowels are affected by the Excrements coming out of a Wound of the Belly, ſo that things evacuated are not here to be underſtood only of thoſe things which come from the Subſtance of the Part affected, but alſo things contained in it. Moreover, as to things evacuated, three things are further to be conſidered, which do moſt diſtinctly ſhew the affected Part, *viz.* the Propriety of the Subſtance excreted, and ſo by Froth caſt up, we may know the Lungs are affected. 2dly. By the Magnitude of the Subſtance excreted, ſo a groſſer Tunic of the Guts being voided by Stool, we may know a groſs Gut is affected. Laſtly, By the Manner of Evacuation, ſo an Artery hurt is known by the impetuous Efflux of the Blood.

A Symptom that is manifeſt is known by it ſelf, but that which is obſcure is beſt known by ſome more manifeſt Symptom of the ſame Diſeaſe; and remotely and obſcurely by the Diſeaſe, and the Cauſe of it, ſo by the waſting of the Body, as by the moſt remarkable Symptom, we know that Nutrition is leſſened, and ſo a Fault of Sanguification by an ill Colour of the Body, and a weak Conſtriction of the Heart, by a weak Pulſe.

By four Signs eſpecially you may know whether the Diſeaſe will be cured, or will kill, *viz.* By the Species of it, the Magnitude of it, with a reſpect to the Strength of the ſick, by the Motion of it, and the Manner of it, ſo for inſtance, a Diſeaſe that is known to be deadly by its Species, is a Conſumption, a Wound of the Heart, the Plague, a Cancer, and the like:

like: A Diſeaſe on the contrary, which is known by its Species to be curable, is an Ephemeral Fever, and the like: A Diſeaſe which is known to be deadly by its Magnitude, is either great in its ſelf, or comparatively ſo; becauſe it is to laſt long, eſpecially if it be alſo malignant. A Diſeaſe is known to be deadly by the worſt and moſt grievous Symptoms. Laſtly, a deadly Diſeaſe is known by its Motion, for inſtance, if it be long, tho' only moderate, it is dangerous and great; for ſuch an one waſtes the Strength by degrees, and at length kills.

As to the Length and Shortneſs of a Diſeaſe, they may be known chiefly by three things. Firſt, By the Species of the Diſeaſe, ſo an Apoplexy, Plague, an ephemeral Fever, are known to be ſhort; a quartan Ague, Palſy, and the like, are known to be long. Secondly, By the Magnitude of the Diſeaſe, ſo you know a Diſeaſe in it ſelf great, or comparatively ſo, does not laſt long. Thirdly, From the manner of the Diſeaſe, ſo you may know a Diſeaſe will not laſt long, that has unuſual and violent Symptoms. The Prognoſtics taken from theſe Signs are not a little confirmed by the Seaſon of the Year, ſo Diſeaſes in the Autumn and Winter are wont to be longer than Diſeaſes in the Spring and Summer, by reaſon of the Tenuity of the Matter, and the greater Apertion of the Body.

A critical Sign is that which ſignifies a *Criſis*. It is wont to be reckoned threefold, demonſtrative, prognoſtic, and commemorative.

A critical demonſtrative Sign is a great Looſeneſs, or a large Hemorrhage at the Noſe, as they make ſome Change in the Diſeaſe. A critical prognoſtic Sign is a great Pain of the Head, Redneſs of the Face, as they ſignifie a Hemorrhage of the Noſe. A commemorative critical Sign is the better Diſpoſition of the ſick, after the *Criſis* is made.

A

A *Criſis* is the ſudden Change of a Diſeaſe, either for Life or Death, it is divided into good and bad, alſo into perfect and imperfect. A good *Criſis* is for Life, a bad *Criſis* for Death. A *Criſis* that is perfect, perfectly carries off the Diſeaſe.

A *Criſis* is not perfect in our Country, becauſe our Region is cold, and the Humours are cold, but the chief reaſon is, becauſe the Practice in theſe Parts is ſuch, as does not commit much to Nature; but we do at the Beginning carry off, or at leaſt leſſen the Cauſe of the Diſeaſe, by bleeding, or gentle purging, or by Medicines that move Urine or Sweat, or the like. Yet, notwithſtanding, a *Criſis* does ſometimes happen here; for ſometimes we ſee, that Fevers are ſometime carried off by Sweat, a Looſeneſs, or bleeding at the Noſe.

The Cauſe of a *Criſis* is a violent Influx of the animal Spirits into the Fibres of ſome Part, whereby the Part contractingit ſelf, expels the Cauſe of the Diſeaſe, or our Heat, or the Motion of the Blood, whereof the Cauſe of the Diſeaſe conſiſts, is detruded to certain Parts; and if this or that Protruſion of the morbific Matter be ſuch, that thereby it be wholly eliminated from the Body, the *Criſis* is perfect. The Ancients aſſigned certain Days for a good and perfect *Criſis*, and ſo much depended on them, that they did not fear a Relapſe, when the *Criſis* happened on any of theſe Days; and ſome of theſe Days they called *Indices*, or *Contemplabiles*, becauſe then they were to ſee whether the Signs of Concoction did appear in the Excrements, and ſo promiſe a good *Criſis*: Others they called *Interdicentes*, in which no *Criſis* was made; but there was a Provocation of Nature to a *Criſis*. Laſtly, Of theſe they called ſome void Days, wherein no *Criſis* was made, nor was there any Provocation of Nature to it. Theſe they alſo called medicinal, becauſe they counted it lawful to give Medicines at this Time.

But

But ſeeing it appears from their Writings, that a good *Criſis* has been made of any Day, and becauſe there is no reaſon why thoſe Days ſhould be only critical, we attribute no more to them, than we do to climateric Years, that ſo much terrifie rich and covetous Men, and to biſſextile Years, that frighten Women with Child.

There are ſuch great Differences of the Pulſe among Authors, that it is impoſſible to diſtinguiſh them; wherefore I ſhall only ſet down thoſe that are uſeful in Practice, and theſe Differences are four, great and ſmall, ſtrong and weak, equal and unequal, frequent and rare. A great Pulſe is when the Artery beats much, long, broad, and deep, a ſmall Pulſe is, when the Artery does not beat much, nor long, broad, and deep; you muſt always underſtand proportionable to the Body; for the Pulſe of the Body may be great with reſpect to it, tho' it be really leſs than in a Man. The Cauſe of a great Pulſe is a great Quantity of Blood, or a great Rarefaction of it in the Arteries. A great Pulſe, as to it ſelf, ſignifies Strength, and is a good Sign, and on the contrary, a ſmall Pulſe ſignifies Weakneſs, Death, or at leaſt a long Continuance of the Diſeaſe: But you muſt not think that a great Pulſe is always beſt; for it is to be ſuſpected ſometimes, as in thoſe that are plethoric; for the great Conſtriction of the Heart oftner proceeds from too great an Irritation of it, than from the Strength of the Faculty; wherefore a moderate Pulſe is beſt.

The Pulſe is ſtrong when the Artery ſtrikes the Finger hard upon touching. The Pulſe is weak, when the Artery ſtrikes the Finger weakly. A ſtrong Pulſe proceeds from a ſtrong Conſtriction of the Heart, and from a ſtrong Courſe of the Blood into the Arteries; and therefore is a good Sign; namely, it ſhews Strength, and a brisk Influx of the animal Spirits into the Heart, it ſhews alſo the Shortneſs of the Diſeaſe; for

for where ſuch a Pulſe is, the Body the eaſier cleanſes it ſelf from the morbific Matter. An equal Pulſe is when the Pulſe equally ſtrikes the Finger touching it. A frequent Pulſe is when it frequently ſtrikes the Finger touching it. The Cauſes of a frequent Pulſe are a Diſpoſition of the Blood to rarifie preſently in the Heart, the Tenuity of it, and the previous Rarity. A rare Pulſe flows from contrary Cauſes, it is ill in Youth, common in Age, but worſt, when it is weak as well as rare.

A Pulſe proper to a hot Temperament, is wont to be great and frequent, and often ſtrong. A Pulſe proper to a cold Temperament is ſmall, ſlow, and weak: A Pulſe proper to a dry Temperament is rare and ſomewhat hard. A Pulſe proper to a moiſt Temperament is ſomewhat great, rare, and ſoft. From what has been ſaid, it is eaſie to judge of Pulſes proper to compounded Temperaments, as hot and dry, hot and moiſt, cold and dry, cold and moiſt.

Childrens Pulſe are very quick, and ſomewhat ſoft; for their Blood is very thin, and their Heart is very tender. In Youths and Men, the Pulſe is very great, and very ſtrong, in Women the Pulſe is quick and ſoft, ſometimes great, but moſt commonly ſmall, for their Heat is weak. Old People have a rare and weak Pulſe, by reaſon their Heat is languid. In the Spring the Pulſe is wont to be ſtrong, great, and moderately quick, for the Blood abounds by reaſon of the foregoing Winter, and the Heat is moderate. In the Summer the Pulſe is quick, ſomewhat great, and ſtrong, becauſe the Blood rarifies better, and the Heat is more. In Autumn the Pulſe is inconſtant and weak, becauſe the Heat is leſſened, and by reaſon of the frequent Variation of the State of the Air. In the Winter the Pulſe is ſmall, weak, and rare, for in Winter the Heat languiſhes by reaſon of Seroſity, and is leſſened by the Air. In Sleep the Pulſe is languid, rare, and ſmall, for the Heat is then ſtarall: But when any one awakes, the Pulſe is increaſed,

ed, and is very unequal, becauſe the Spirits ruſh from the Brain into the Nerves of the Heart. In Anger the Pulſe is great, ſtrong, and frequent; becauſe the Spirits are carried plentifully and violently into the Heart. In Sorrow the Pulſe is ſmall, weak, and rare, becauſe the Spirits languiſh in the Brain. In Mirth the Pulſe is moderately great, ſtrong, and equal. The Pulſe proper for Love is more difficultly known; for it is compounded of ſeveral Pulſes, of diverſe Affections of the Mind; yet any one may know Love by the Pulſe, if Signs of Diſeaſes being abſent, the Pulſe is very unequal and inordinate; for the Spirits are wont to move very irregularly both in the Brain and out of it; for ſometimes they are merry, and ſometimes ſad, ſometimes they fear, and ſometimes they hope well.

CHAP. XVII.

Of the Urine as a Sign, of the Indication, the Indicant, and the thing indicated.

WE treat only here of the Urine, as an Effect, ſhewing its Cauſe in the Body, and ſo taken, it ſhews the Temper of the Body, or ſomething particular about the Parts of it, thro' which the *Serum* continually flows; for by them it is varied in Subſtance or Quality; but the Inſpection of the Urine is beſt after Chylification is perfectly made, and therefore it is beſt to ſee it after Sleep in a Morning. You muſt put it into a clear and thin Glaſs, that is round at Bottom; but it muſt not be viewed after Coition, Watching, Purging, or after Uſe of Medicines that affect the Urine, and it muſt not be viewed as ſoon as voided, nor too long after; but as ſoon as it is cold, and has a Sediment. You ought to view it in a clear Air.

If

If any one ſhall bring to a Phyſician, with Deſign to deceive him, the Urine of a Brute, or any thing elſe, inſtead of Man's Water, the Cheat is beſt diſcovered by the Smell.

Every Diſeaſe cannot be known by the Urine, tho' Piſs-prophets pretend they are able to know all by it; for a Giddineſs of the Head, a Wound of a certain Part, a Palſy, Luxation, and many other Diſeaſes cannot be known by it, tho' ſomething may be brought to the Reins and Bladder from every Part: But the Conſtitutions, Good or Ill of thoſe Parts, wherein the Urine is perfected, generated, or ſomewhat altered, are chiefly known by the Urine, as of the Viſcera ſerving for Concoction of the Blood, Heart, Ureters, and Reins; therefore I ſay that Urine is a very general diagnoſtic Sign, and more general than the Pulſe, becauſe it often diſcovers the Diſeaſe, the Cauſe of it, and the Part affected; but the Pulſe does not ſo; for by the Urine we know Diſeaſes, as Ulcers, Wounds, Obſtructions, and the Intemperies of the inner Parts; by the Urine we know the Cauſes, as Viſcidity, Crudity, Choler, Stones, Sand, Clods of Blood, and the like. By the Urine we know the Part affected, as the Bladder affected by Scales or fetid Pus mixed with the Urine. We know the Reins are affected by Caruncles, Blood and Pus coming away with the Urine. We know that the Bladder of the Gaul is affected by the Urine being pale for a long while: But none of theſe are found by the Pulſe, yet the Pulſe is a more certain Sign of Life or Death, for it ſhews the primary Cauſes of Life, whether they are well or ill, as the Influx of the animal Spirits from the Brain to the Heart, the Temper of the Heart, Blood, and the Concomitants of them.

Urine alſo often ſhews Death, as an Iſchury by the Defect of it in a *Leucophlegmatia*, by the Aquoſity of it; in an Ulcer of the Bladder, by Pus mixed with it, in the

the Plague, by the Blackneſs of it, and its variegated Colour, and the like: But we muſt not prognoſticate any thing raſhly by the Inſpection of the Urine: For ſometimes, in the moſt dangerous Diſeaſes, and when the Pulſe are ill, the Urine appears good, and yet the Patient dyes notwithſtanding; wherefore it is very fallacious.

The chief Colours which are obſerved in Urine, are theſe four, white, red, yellow, black. The general Cauſes of Colours in Urine are the Heat continually boyling, and working upon the Aliment, the Stomach, and Guts, and upon the Chyle mixed with the Blood. That Heat is the Cauſe of the Colour in Urine is very manifeſt from Fevers, the Heat of the Air, Labour, long Retention of it in the Body, and the like; and we ſee that by Heat Beer grows redder, and that Rheniſh Wine carried into *Spain* looks more yellow, and Urine boyled over the Fire grows very red.

White Urine is twofold, one thin, called watery, the other thick, called milky. The Cauſe of a watry Urine is weak Heat, as in ſuch as are cachectical, and hydropical, large Drinking, too ſhort a Continuance of it in the Body by reaſon of the Laxity of the Paſſages; for ſo ſuch a due Chylification and Sanguification cannot be made, as to tincture the Urine. An Obſtruction of the Paſſages, as we ſee in a Stone of the Kidnies. Laſtly, Choler, by reaſon it is carried to the Head by being thin and light, as we ſee it is ſometimes very ſuddenly in Fevers, and then it betokens a *Delirium*. The Cauſe of a milky Urine is the Mixture of ſome white Humour with it, as Flegm, Seed, Pus, and the like.

A yellow Urine is cauſed by a due Concoction of the Chyle with the Blood. A red Urine is made by the Mixture of Blood with it, or by a greater Coction. Blood is mixed with the Urine, either upon the account

count of the Tenuity of it, or by reaſon of a Ruptur of a Veſſel in the Reins, or Bladder, or the like. A black Urine, and other Species of it, ſignifie the Aduſti on or Corruption of the Humours in the Body. The Urine often changes Colour, and ſo when 'tis voided red, being expoſed to the Air, it ſometimes, a little after, turns brown or yellow, and this comes to paſs by the divers Reflection of the Light.

The Urine never ſmells pleaſantly unleſs ſome odoriferous thing be taken in, as Musk or the like, yet the natural Smell is not very ſtinking tho ſtrong and ſulphureous, and if it be without, it argues Debility of Heat, or that the Urine has not continued long enough in the Body. If the Urine ſtink much (unleſs ſtinking things have been taken in, as putrid Cheeſe, Garlic, or the like) it ſignifies the Corruption of ſome Humour, or the Ulceration of ſome Part, eſpecially if Pus be mixt with it. But Urine that has Pus mixt with it, does not neceſſarily ſtink, for often Pus it ſelf, coming from an Impoſtume, ſcarce ſmells, and much leſs when it is mixt with Urine. But it is manifeſt from Experience, that Matter made in the Reins or Bladder, ſtinks much, and is groſs and viſcid.

The Taſte of the Urine is ſalt and nitrous, as is the *Serum* whereof it is chiefly conſtituted, if it has any other Taſt, it proceeds from the Mixture of another Humour, and ſignifies that ſuch an Humour abounds in the Body. But you will ſay, it is below a Phyſician to taſte: Urine I anſwer, the Phyſician need not taſte the Urine, for the Patient himſelf may do it.

The Quantity of the Urine is either the Abundance or Paucity of it. The Quantity in the natural State, is proportionable to the liquid Matter taken in, yet ſomewhat leſs, perhaps about a third, for ſome Part of it continually paſſes into Nouriſhment, and ſome Part is evacuated inſenſibly, or by Sweat, or by Spittle, and ſome ought to remain in the Blood to dilute it, or to be a Vehicle for it.

A

a great Quantity of Urine, unleſs it be occaſioned by Cold obſtructing inſenſible Tranſpiration, or by reaſon of taking Diureticks, Dropſie, Rheumatiſm, or by the *Criſis* of a Fever, whereby the Cauſe of the Diſeaſe is carried off, ſignifies a Debility of the urinary Paſſages, and the Laxity of them, and as the Effect, the future waſting of the Body, as in a *Diabetes*. A ſmall Quantity of Urine, unleſs it proceeds from a Defect of liquid things taken in, ſignifies great Heat diſſipating the *Serum*, by inſenſible Tranſpiration, Sweat, or the like, and is often ſeen in Fevers; or it ſignifies an Obſtruction of the urinary Paſſages, a Dropſie of ſome Part, a Rheumatiſm, Catarrh, or the like.

The natural Conſiſtence of Urine is like that of Beer, moderately and duely boyl'd and fermented.

A groſs Urine ariſes from a Defect of Seroſity, or by ſome thick thing mixed with it, as it happens ſometimes at the Beginning of Fevers, and in Children that eat too much.

A thin Urine proceeds from an Obſtruction of the Urinary Paſſages, and ſo by reaſon of the Stone in the Kidneys it is thin, or by reaſon of the Weakneſs of the natural Heat.

That which is contained in the Urine is that Body which is obſervable in the Subſtance of the Urine. It is univerſally threefold, the Hypoſtaſis, which ſubſides to the Bottom; the Eneorema which is ſuſpended in the Middle, and the Nubecula which is on the Top: Of theſe none ought to be in the Urine of a well Perſon, but the Hypoſtaſis, which ſignifies that Concoction is made, and if it be of a whitiſh, and of a round Figure, and equal, it is beſt.

That which is particularly contained in the Urine is either a Stone, Sand, Matter, Blood, Caruncles, Fat, or a brawny Sediment; and moſt of theſe ſignifie a Diſpoſition to the Stone in the Kidnies, or in the Blad-

der. Fat ſignifies a waſting of the Body, and is often ſeen upon the Top of the Urine of conſumptive People. As to the Sand, it is not as ſome think always Fragments of a greater Stone, but a certain Concrete of Salt in the Urine.

Becauſe the ordinary People, and ſome of the better Sort have been a long while, and are ſtill much abuſed by Quacks, Empericks, and ſome methodical Phiſicians, who pretend to the Knowledge of all Diſeaſes, by the Inſpection of the Urine, I ſhall here make appear, that there is no certain Knowledge of many Diſeaſes to be gathered from the Urine alone, and that it is better for the Phyſician to ſee his Patient once, than to view his Urine twenty times: And ſeveral learned Phyſicians have likewiſe written diverſe Tracts therein, diſcovering the Dangers of taking Phyſick preſcribed only by the Sight of the Urine, to the end that they might diſpoſſeſs Men of that fond Opinion of a Phyſician's diſcerning Diſeaſes by it, wherewith they have been ſo long time deluded; and one of theſe, in ſhewing the Falſhood and uncertain Judgment of Diſeaſes by the Urine, hath ſet down the ingenious Confeſſion of a dying Phyſician, made to him, being then preſent with him ſome three or four Days before his Departure, who being requeſted to leave to Poſterity that Skill whereby he had been ſo much admired and eſteemed for judging Women to be with Child by their Urine, made this Anſwer; I have, ſaid he, with great Applauſe, exerciſed it, and found, by much Experience, that it is a great Cheat; and therefore not worthy to be counted an Art, and unfit to be communicated to Poſterity. Another of them makes alſo this fair Confeſſion. Says he, I have been ſo fortunate herein, that I have ſeldom failed in my Predictions of determining a Woman to be with Child by the Urine, as I have made them believe, when the Meſſenger has been able to certifie me of the State of the Woman's Body, and could

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answer me to certain other Questions touching other Signs of Conception. Above all the rest, I was once magnified by a Counsellours Wife, for this cunning Cheat; she meeting with two other Doctors, she told them to their Faces, that I was the cunningest Doctor in all the Town; for I had told her, by her Water, that she was with Child, and just how long it was since she conceived of it: But had the Woman that brought the Urine, shewed me no more than the Urine did, I should scarce have ventured to have pronounced her to have been with Child: But I, said he, am more to be blamed for my jugling, than she for her Credulity.

Notwithstanding what has been said, the vulgar Sort are so strongly prepossessed by reason of their Ignorance, that Physicians can discern, by the Urine, the Disease, the Conception, the Sex, the Parties Age, with many other such Absurdities, that I fear it will be a hard Matter to dispossess them of that Opinion; and Physicians, the more to blame they, have intimated and pretended so much to this Knowledge, that they will hardly acknowledge their Errors, and relinquish this Cheat: But when it shall appear that the Urine is deceitful, and the Physician that pretends Knowledge of Diseases thereby, and gives his Judgment by such Fallacies and Jugling, as shall be shewed in the ensuing Discourse, let the ignorant chuse whether he will believe his lying Oracle or no, and let the Physician chuse whether he will be honester than to use such Deceit. Yet I hope the one will blush to have been so deluded, and the other to have his conjecturing discovered, the Urine giving no certain Knowledge of most Diseases.

Diseases are either acute or chronical, ; acute are a Pleurisy, Peripneumonia, Frenzy, Iliac Passion, Fever, Small Pox, Pestilence, and the like. Chronical Diseases are such as proceed from the ill Tempetature of the Humours, and Disposition of the Constitution

of the Body, ſuch are a Conſumption, Dropſie, Melancholy, Gout, Palſy, Falling Sickneſs, Cachexy, and the like; but for the moſt part, the common ſort of People come or ſend their Water to Phyſicians for acute Diſeaſes, and acute Diſeaſes have always a hot and burning Fever joined with them, and the Urine, for the moſt part, in a burning Fever, is of a high red Colour, and ſuch an Urine being brought to the Phyſician to caſt, as they call it, and being of a red high Colour, he preſently conceives it to be a ſharp and violent Diſeaſe, and then knows for certain that there is a Fever joined with it, and ſo he is quickly prepared to give his Judgment of it, and needs now do no more but give a Deſcription of a Fever to make the Meſſenger believe that he perceives a Diſeaſe in the Water, ye he comes to the true Knowledge of the Diſeaſe by ſome ſuch Parly and Expoſtulation with the Meſſenger, as ſhews the Symptoms and Affects of the ſick Party. Now the Deſcription of a Fever, and indeed one Deſcription will ſerve for any Fever, and for all ſharp and violent Diſeaſes, is to reckon up the Symptoms and Signs of a Fever, which he knows before he looks upon the Water: They are theſe, Oppreſſion of the Stomach, Want of Appetite, a great Pain in the Head and Back, and the like. Now the ſaying ſo makes the Meſſenger think that the Doctor perceives by the Urine that the Party is ſo affected, yet it is no ſuch Matter; for a high colour'd Urine is not always the infallible Sign of a Fever; but ſuppoſe it were, yet the Symptoms and Companions of a Fever, as Heat, Thirſt, Pain in the Head, and Want of Sleep, Oppreſſion of the Stomach, Want of Appetite, and the like, are not to be ſeen in the Water.

Theſe things being premiſed, I hope thou wilt be the better able to judge of that which follows, and perceive how eaſie a thing it is to give Judgment of Diſeaſes by the Urine, tho' it be not there to be ſeen, and will

will perceive the Fallacies that uphold this Cuſtom, and ſo learn to diſtinguiſh betwixt an honeſt, learned, plain-dealing Phyſician, and a cheating Caſter of Water.

The Meſſenger, whether Man or Woman, you muſt note, is one who is as it were made out of Wax, and the Phyſician can mould him into any Form that ſhall fit his Purpoſe beſt, and make him, by impertinent Queſtions, as he thinks, to tell him any thing concerning the ſick Party, that he ſhall deſire to know.

The Urine, if brought out of the Country, is for the moſt part in a Glaſs Bottle: But if ones in the City, it is brought in an Urinal or Viol, it is red and high coloured; and therefore the Piſs-prophet rips up all the Symptoms of a Fever, as before, and the Meſſenger preſently anſwers that the Party is juſt ſo affected, as I ſaid: But as yet he has not named the Diſeaſe, and perhaps omitted ſomething, which is expected he ſhould have named, and the Meſſenger is ready then to ask him, if he perceived nothing elſe in the Water; to whom he anſwers, yes, if you'll give me leave to tell you; and perhaps the Meſſenger asks if he do not perceive a Stitch, then the Piſs-pot Lecturer anſwers, looking upon the Water, as if it were there to be perceived, yes, I well perceive the Stitch, and ſome Cough too, and he ſays, when the Cough takes the Party, the Party is much pained in the Side; and becauſe he did not firſt name the Stitch, he tells the Meſſenger, that we firſt uſe to declare the Cauſe of the Diſeaſe, before we come to every Paſſion, or Effect of the Diſeaſe, or before we name it. He further adds, that he was not come to ſpeak of the Stitch, becauſe he had named the Oppreſſion of the Stomach, and the Obſtruction of the Spleen and Meſentery, and that the Stitch was nothing elſe, but a flatulous and windy Humour proceeding thence to the Part affected. And now having been ſo happy in his Predictions of

the Diſeaſe, and rightly determined it to be a Pleuriſie, ſo now he proceeds to the Preſcription of ſuch Remedies as may cure this Pleuriſie, and yet here he is as far to ſeek, tho' he know the Diſeaſe to be a Pleuriſie, as if he knew not the Diſeaſe at all, nor had ſeen the Urine, becauſe he does not therein perceive the Scope and Grounds of preſcribing fit Remedies, in every Reſpect, proper to the Diſeaſe, according to the Rules of Art, the which Scope and Grounds are theſe, namely, the Parties Age, the Sex, the Conſtitution of the Body, and the Strength of it at this Time, with divers other Accidents, as whether the Party be bound in his Body, or have a Flux, or the like; all which, nor any one of them can be diſcerned by the Urine, and ſo he muſt needs err in his Preſcription, if the Meſſenger refuſe, or be unable to give him a full account of the Caſe; for if not knowing the Age of the Party, he ſhould order ſuch a Quantity of Blood to be taken away from a Youth, ſuppoſe Ten or Twelve Ounces, in a Pleuriſie, the Diſeaſe in Hand, as ſhould be taken from a Man in his full Strength, the Party might periſh thereby: Or if he ſhould take but four or five Ounces of Blood from a luſty young Man in this Diſeaſe, he would do him no good, and ſo he might periſh on the other hand. He may likewiſe err in the Doſe, by preſcribing more or leſs than is proportionable to the Party's Age. He may likewiſe err as much by not knowing the Sex, if he ſhould in the forenamed Diſeaſe preſcribe Blood-letting to a Woman, when ſhe has her natural Courſes upon her; for thereby there may be a Solution of the Diſeaſe without bleeding. He may likewiſe err, if not knowing the Sex, he ſhould preſcribe purging Phyſick for a Woman with Child; he may alſo err upon the Account of the Conſtitution of the Patient, and Time of the Diſeaſe. Many Ways more may be ſhewen how he may err, and how moſt Phyſicians do err, that preſcribe Phyſick by the View of the Urine only. In

In the next place I ſhall ſhew how many Ways theſe falſe Prophets have to deceive the People, and to make them believe that they diſcern all things by the Urine, namely, the Diſeaſe, the Parties Age, Sex, Strength, Conſtitution of the Body, and the like. Suppoſe the next Meſſenger to be ſome Nurſe, or Tender of ſick Perſons; who is commonly verſed, and accuſtomed to carry ſick Perſons Urines to Phyſicians; and as the Piſs-lecturer is taking the Urinal out of the Caſe, he asks the Nurſe how long the Party hath been ſick; and ſhe, out of Modeſty and good Manners, can do no leſs than anſwer him to this Queſtion; for ſhe thinks this Queſtion to be Words of courſe, and that he can gather nothing from hence touching the Parties Diſeaſe; ſo ſhe anſwers him, a Week, a Fortnight, two or three Days, more or leſs, and hence he collects and has a ſtrong Preſumption, that it is an acute Diſeaſe. Having askt this Queſtion, and lookt upon the Urine, he ſays this Party has a great Oppreſſion of the Stomach, has no Appetite, a great Obſtruction of the Liver and Spleen, is very hot and thirſty, and has a great Pain in the Head, and can take no Reſt, and was ſeized in the manner of an Ague, firſt cold, then hot, as he ſaid in giving his Judgment on the laſt Urine; and indeed, this Deſcription will ſerve for any acute Diſeaſe, whether it be the Pleuriſie, the Small-pox, Meaſles, a Fit of the Stone in the Kidnies, Quinſy, Frenzy, the Iliac Paſſion, or any other acute Diſeaſe, wherewith a Fever is always complicated; or whether it be a ſimple Fever, which is primarily the Diſeaſe it ſelf; but yet he will not always uſe the ſame Deſcription; becauſe divers Meſſengers may come to a Phyſician, and may ſtay, for Companies ſake, to go away together, and may fall to queſtioning each other, what the Doctor ſaid to them, and ſo may think, if he ſhould uſe the ſame Deſcription to them all, that he could ſay nothing elſe; therefore he ſometimes varies

his Deſcription, and ſometimes is ſhorter in the ſame; and then, if he find, by an Expoſtulation with the Meſſenger, that he has omitted any thing that he ſhould have ſpoken to, he ſays, it proceeded from ſuch a Cauſe as he had already named, and that he ſhould have come to ſpeak of that anon. He is ſometimes likewiſe larger in his Deſcription, as herein relating how the Party is affected, from whom this Nurſe comes, and ſhe is as ready to take him up for the ſame, and ſays, it is true indeed, that the Party can take no Reſt, has no Appetite to Meat, and was ſeized in the manner of an Ague, but complains not of his Stomach at all, but cries out, my Head, my Head, and complains altogether for want of Reſt; he replies, that the Pain of the Head is the chief of the Paſſions that the Party is affected with, but yet that it proceeded from the Obſtruction of the Stomach, and Oppilation of the Liver and Spleen, which ſend choleric Fumes to the Brain, which inflame the animal Spirits, and cauſe this Pain that hinders Reſt, and that if Reſt be not obtained, the Party will rave and be frantic. Thus, having anſwered this Objection, he now begins to touch the Urinal, to ſee if it be ſettled: But finding it not ſettled enough to his purpoſe, to ſhew thoſe things he muſt find out of it, he ſets it down again very tenderly, ſaying, it muſt yet ſettle a little better, and then he falls to queſtion the Nurſe concerning ſomething that may ſhew the Sex, for he muſt find out that by the Water too, and therefore he asks her what the Party uſed to do in the Time of Health, and this is a Queſtion that may, ſhe thinks, as well be anſwered without giving him any Light of the Sex, as the former Queſtion, which was how long the Party had been ſick, of giving him any Light of the Diſeaſe. But you ſhall hear what he collects from thence; ſhe anſwers, he demanding what the Party uſes to do, that the Party uſes to do little, ſave only to go up and down

the Houſe, to work about the Houſe, to walk up and down abroad, to keep a Shop, to labour, or the like; and from all theſe he makes ſeveral Obſervations; for if ſhe ſay that the Party uſes to do little, ſave only to go up and down the Houſe, he preſumes that it is the Miſtriſs of the Houſe, or one of her Daughters, or ſome Gentlewoman in the Houſe; for certain it is a Womans Water; for they ſhould, and commonly do keep their Houſe, and their Work is to walk up and down the Houſe. But if ſhe ſay the Party uſes to do ſuch Work as is to be done in or about the Houſe, it is moſt likely that it is a Maid Servant; but if ſhe ſay to walk abroad, he then preſumes it is a Man's Water, and that it may be the Maſter of the Houſe, or his Son, or ſome other Gentleman's, whoſe Employment is only to walk abroad and take his Pleaſure. But if ſhe ſay to keep a Shop, he ſuppoſes it to be the Miſtriſs thereof, or the Apprentices; or if ſhe ſay that the Party uſes to labour, he imagins it to be a Man-Servant; ſo by her Anſwer to this Queſtion, namely, what the Party uſes to do in time of Health, he diſcerns the Sex, and now taking the Urinal again in his Hand, for by this time it has ſtood long enough to ſettle, he ſays that it is a Womans Water, if the Anſwer to the Queſtion, what the Party uſed to do in Time of Health did infer as much; that ſhe has a burning Fever, and is ſo dangerouſly ſick, that will hardly recover, unleſs ſuch and ſuch ſpeedy Means be uſed; and this Danger he always pretends in every violent Diſeaſe, tho' there be no deadly Sign at all, but not to the ſick Parties; for that they cannot endure to hear of, but ſecretly to the Meſſenger, or ſome near Friend or By-ſtander, if he be preſent with them; and then, if the Party live, his Judgment will not be ſo much as queſtioned for ſaying the Party will dye; but be magnified for that he has recovered her of a dangerous Diſeaſe; nay, to be ſure, be happy in his Predictions and

Prog-

Prognoſticks concerning Life and Death of the Patient; for they muſt always have a Hint of that, tho' the Thoughts of Death be unwelcome; but he always ſays if ſuch and ſuch Means be uſed, ſhe may happily recover; and now he has performed his Part well enough to the Nurſe in his Prognoſticks concerning the Event of the Woman's Sickneſs, from whom ſhe is come. He has told her how the Woman is affected, what the Diſeaſe is, and what will be the Event, and the Nurſe is reaſonably well ſatisfied herewith: But yet he has omitted ſomething that ſhe will be ſure to tell him of; for ſince ſhe has undertaken the Matter, ſhe will not go without her Errand; and therefore asks him if he perceives nothing elſe by the Water? And he imagines well enough what it is elſe that he ſhould perceive in the Water; for when that Queſtion is propounded, it is to know whether the Woman be with Child or no: He anſwers, that there are many more things to be perceived by the Water, but not at all times, as whether a Woman be with Child or not, which is that you look for; but it is not now to be ſeen in this Water; becauſe her Body is all out of Temper, and her Water troubled and diſcoloured, yet he thinks her with Child, and well he may, if ſhe her ſelf think ſo: But he further tells her, that he could have certainly told if ſhe had brought her Water in the Time of her Health; and ſo ſhe is ſatisfied for that Matter, and confeſſes that ſhe is with Child indeed. Having thus ſatisfied her in all theſe things, told her that it is a Woman's Water, in what manner ſhe was ſick, what was her Diſeaſe, that it was likely ſhe was with Child, which proves true, and that ſhe would ſcarce recover: He asks her whoſe Water it is; but ſhe will not tell that by any means; for ſhe was forbid to diſcover it, and indeed ſhe was ſent only to hear his Opinion of the Water, the which if ſhe like, he may perhaps hear further from the Party; but if not,

not, she is ordered to go to another Doctor, and so if she like not his Opinion neither, from him to another, until she comes to him that hits the Disease righteſt, as she conceives by the Water, and it is a great chance if he be not the greateſt Fool and Knave of all the three. This is the Man that muſt be made choice of to cure the Woman, and this is thought great Policy in making Choice of an able Physician; it therefore behoves him to be a Crafts Maſter in this Art; for else you see here, he is like to be chouſed of his Patient, and to have his Skill call'd in queſtion; for if he cannot find the Diſeaſe by the Water, they ſoon conclude he does not know how to cure it; the Nurſe tells him indeed, that she came to hear his Opinion of the Water, and that the ſick Party would ſend to him again, when she had heard (she ſhould have ſaid if she liked it) what was his Opinion, and I think he has fitted her; and now he tells the Nurſe, that she ſhould make haſte home, and bids her be ſure to deliver his Opinion as he told her, and to tell ſome of her near Friends how dangerouſly ſick she is, and that he would, if she think good to make uſe of him, uſe the beſt Means that Art affords to recover her, and now he bids her make all the Haſte that may be; but yet before he lets her go, he thus beſpeaks her; really Nurſe I commend thee that thou wilt do thy Errand handſomly, and make a Phyſician find the Diſeaſe out by the Water, and not be gulled to tell how the Party was affected, as many a Fool would have done: But I hope I have ſhewed thee truly, how the Party is affected, and what is her Diſeaſe, and given thee ſuch Satisfaction as will content them that ſent thee, here is for thy Pains, becauſe thou haſt put me to it ſo handſomely, and ſo gives her (fearing leſt he ſhould have erred, that she may maintain his Credit, and in hopes of receiving a better Fee for being ſent for) the Groat or Six-pence; nay, if it chance to be a Six-pence, indeed

deed ſhe ſhall have it all, and ſo he ſhall be ſure to have his Meſſage well done, and perhaps ſhe will tell him that which ſhe denyed before, if not, ſhe will magnifie him for his Skill, and he ſhall be ſure to hear further from the Party, and have the caſting of all the Waters ſhe can bring him. So now he ſends her away, and laughs at her, and the Devil at them both: He laughs at her, becauſe he has cozened her, and the Devil that he has cozened them both, by making her to believe that he diſcerns all thoſe things by the Water that he told her, and making him to back his pretended Knowledge with ſuch horrid Cheats.

In the next place I ſhall diſcover the great Simplicity of ſuch as ſend their Urine unto a Phyſician without any Inſtructions how the Party is affected, and the deſperate Hazard that they put their Lives in, who adventure to take Phyſick preſcribed only by the Sight of the Urine.

Sometimes a Meſſenger is ſent, and has no Knowledge of the Diſeaſe, nor of the Party that is ſick; and now the Piſs-prophet muſt ſhew his Skill or never. He takes the Water to examine it, and thinks to queſtion with the Meſſenger, as with the former, how long the Party has been ſick, whoſe Water it is, and to put in ſuch other Queſtions as may ſhew ſuch Circumſtances as will diſcover the Diſeaſe, and guide him in preſcribing fit Remedies for the ſame: But the Meſſenger cannot tell whoſe Water it is, much leſs the Conſtitution of the Body, the preſent Strength at this Time, or whether the Party be bound or looſe in his Body, with divers other ſuch Circumſtances, all which are ſo neceſſary for him to know, as that without the Knowledge thereof he cannot ſafely preſcribe any Phyſick; and yet this Meſſenger cannot tell him one Word, for he ſays he was not told, but was only hired to bring him the Water, and to bid him ſend ſomething to help the Party, and all that he can ſay is, that ſuch a Man's

Servant

Servant came to him to get him to come, but does not tell him whoſe Water it was, nor how long the Party had been ſick, and now in God's Name, what ſhall he do in this Caſe? For it is preſumed that he knows the Diſeaſe by the Water, and all the Circumſtances belonging to the ſame, which are requiſite to guide him in preſcribing fit Remedies; and this baſe Fellow has pretended as much, and endeavoured to nurſe up Folks in this Folly, as much as other Phyſicians have done before him, and has given his Judgment of Diſeaſes by the Sight of the Urine, and backt his pretended Knowledge by ſuch Fallacies as I have ſpoken of, without which neither he, nor any Phyſician in the World can give any Judgment of a Diſeaſe; nor come to the Knowledge of ſuch Circumſtances, unleſs the Meſſenger tells them, as may guide them in the preſcribing of ſafe Medicines every way proper for the Diſeaſe. However it be, ſomething muſt be done, tho' at random, and therefore, looking upon the Water, he perceives it to be very groſs, thick, and turbid, in all Places alike, of an intenſe, high, dark, red Colour, and from thence he conceives, according to the foppiſh Piſs-maxims, and Rules of our great Piſs-prognoſticators, there is a great Commixture of ſuperabundant Humours, which the Subſtance of it, as they ſay, being groſs, thick, and turbid, ſhews, and that Nature is not yet able to concoct theſe Humours; for then there would be ſome Separation in the Urine, and it would not be in all Places alike, but would have a Sediment in the Bottom, and be tranſparent in the upper Part. He conceives alſo, that the Patient has a great Fever, for that the Colour ſhews, being red and high, and that there is great Danger; for it is of an high dark red Colour, tending to Blackneſs: But yet he cannot tell what manner of Fever it is; for he cannot diſcern by the Urine, as common People ſuppoſe the Paſſions, and Affects of the ſick Party, that determine

the

the Diſeaſe, and ſhould guide him in preſcribing fit Remedies; and therefore he cannot tell whether it be beſt to bleed, to purge, or to give a Gliſter, or whether the Body will bear any of theſe, or whether he had beſt give an Anodyne, or ſome cooling Julep, or ſome cordial Antidote, to expel noxious Humours from the vital Parts. Now which of theſe Methods he had beſt uſe he knows not. But however the Matter is not great; for the Patient ventures but his Life, and why ſhould not he venture his Skill? He now therefore pronounces the Party to be ſick of a baſtard Pleuriſie, or a Fever, and that he would hardly recover; further adding, that he ſhould have been blooded a Week ago, and that he fear'd it ſhould now be too late, yet he orders it to be done; for if any thing in the World recover him, it muſt be that; if that do it, it is but habnab: But yet however, he muſt put it in Practice; ſo now he haſtes away the Meſſenger to get a Surgeon, and tells him where, and in what Quantity the Blood muſt be taken away. And now, it is a Queſtion whether the Diſeaſe, or the Life be let out by this Blood letting. But perhaps, inſtead of bleeding he preſcribes ſome purging Potion, and ſo ſets the Diſeaſe and the Medicine together by the Ears, and leaves the Succeſs to Fortune, and now whether the Party lives or dyes he cares not; for if he dyes he has taught them to blame their own Negligence in not ſending any ſooner. But if Nature be of ſuch Force, that ſhe is able to withſtand the Conflicts between the Diſeaſe and the Antidote, and ſtand up and take part with the Medicine, ſo that the Party recover, he ſhall receive more Praiſe, as being the only Cauſe of the Patient's Recovery, than Almighty God, who in his Providence has been pleaſed, by the Work of Nature, more than by any Skill of his, to ſpare and recover him. And thus the People overvalue the Means, whereby as they ſuppoſe, they have been recovered, tho' uſed ſo deſperately, as has been deſcribed above.

And

And now I hope you perceive, by these few Instances, how a Man may deceive the wisest Messenger that you can send to a Physician with the Water, and shew you the Disease by the same, altho' it be not there to be found; and how great Danger they put their Lives in, that adventure to take Physick prescribed by the Sight of the Urine only; and so I have done with all acute and violent Diseases, and am now coming to speak of chronical, lingring, and Diseases of Continuance, wherein I mean to shew how these Piss-prophets give Judgment of them by the Water, tho' in these Diseases it shews less than in acute and violent Diseases. But before I come to examine some few Urines, to shew how they give Judgment of chronical Diseases, I must let you understand, that in chronical Diseases, such are the Dropsie, Gout, Palsie, Falling-sickness, Scurvy, French-pox, Green-sickness, Coughs, Headach, the Urine is no way faulty, but represents the Urine of the healthful, and yet the Physician, such an Urine being brought to him, must sentence the Party that made it to be sick, upon no other Proof, but only this lying Strumpet and false Witness, the Urine suborned by the beguiled, and self-conceited Vulgar, and connived at by the Piss-justice or Judge, before whom it is brought, who is corrupted for a Testar, and is contented to accept of her Evidence for Truth, when he knows it to be a palpable Lie that she comes to affirm.

And as in these chronical Diseases, the Water, for the most part, seems not to import any Disease at all, yet the Party may be irrecoverably sick; so likewise the Urine is oftentimes of a high red Colour, and seems to import a high Fever, when the Party is not sick at all. It may be also of a good Colour and Consistence in a violent Disease, for the Confirmation whereof many Instances may be brought.

Now

Now I come to ſhew how they come to know certainly whether it be a chronical Diſeaſes or no, tho' the Urine ſhew no ſuch thing, namely, by the ſame Queſtion that was propounded in giving Judgment upon Urines in acute and violent Diſeaſes; and the Queſtion was this, the Piſs-monger asks the Meſſenger how long the Party has been ſick; by Anſwer whereunto he is certified whether the Diſeaſe be chronical or violent, for if the Piſs-poſt ſays a Week or leſs, then he preſumes it is a violent Diſeaſe: But if he ſay that the Party has not been very well a good while, which is commonly their Anſwer in chronical Diſeaſes, he is confirmed the Diſeaſe is chronical, and when he has once received this Anſwer to the forenamed Queſtion, let the Water be what Colour ſoever it will, he knows how to give an Anſwer that ſhall pleaſe the Meſſenger, and will find the Diſeaſe.

Aſſoon as the Piſs-prophet hears a knocking at his his Door, he trudges in Haſte to ſee what is the matter, and looking ſharp, as if he had greater Buſineſs than to examine a Piſs-pot, he finds there three or four Piſs-Meſſengers at once with their Urinals under their Aprons, whom he uſhers into the Hall, and looks very ſternly upon them, and asks them very haſtily (to the end he might daſh them ſo far out of Countenance, that they may not be capable of conceiving whether he err or no in giving Judgment on their Waters; and to make them the more ready to tell him whatſoever he ſhall demand of them) what they would have with him, where they live, whoſe Water it is that they bring, and the like, and they are all ready to preſent their Waters, looking who ſhall be diſpatched firſt: But before he takes any of their Urinals, he ſounds them, to know how far he ſhall be puzzled with them, diſpatching thoſe firſt, that he finds he ſhall be leaſt troubled with. To the firſt therefore he ſays, where live you? And ſhe anſwers, in ſuch

a Place, naming it. He further asks her whoſe Water it is, he asks her alſo who is her Miſtreſs; to which ſhe anſwers very orderly, and is now ready to put forth her Urinal unto him; but he does not take it, nor does he ask her any more Queſtions, for ſhe will be ready to tell him whatſoever he ſhall demand; he comes therefore to the ſecond, and asks her where ſhe dwells, and ſhe having told him, he likewiſe asks her whoſe Water it is that ſhe has brought, and ſhe ſays, a Gentlewoman's, who deſired her to bring it unto him, and ſhe is ready to give it him; but he refuſes it: He goes now to the third, and asks her where ſhe dwells, and that ſhe is contented to tell him; but when he asks whoſe Water it is, ſhe pauſes here, and makes a Doubt whether ſhe had beſt tell him or not, therefore anſwers, that it is her Friend's; then he asks her what Friend it is, and whether it be a Man's or a Woman's Water, and ſhe tells him that he ſhould perceive that by the Water when he looks upon it, and holds forth her Urinal, in Hope that he will diſpatch her firſt; but he refuſes to take it, for he is like to be more puzzled with her, and it will require more Time and Art to anſwer her than both the other, and therefore ſhe ſhall tarry to be the laſt anſwered for that Trick; he now therefore takes the Urinal of her that told him it was her Miſtreſſes Water, and ſingles her out from her Fellows, bids her follow him into another Room; for he muſt not let ſeveral Meſſengers hear what he ſays to each other; becauſe he may chance to ſtop two Gaps with one Buſh, and to give the ſame Anſwer and Deſcription of the Diſeaſe; and indeed one Deſcription will as well ſerve for all chronical Diſeaſes, as a Deſcription of a Fever for all violent Diſeaſes; he having therefore took the Maid into another Room, bids her come to the Light, and as he is taking the Urinal out of the Caſe, perceiving it to be of a ſubcitrine, or pale Colour, which ſeems not to

import any Diſeaſe, he preſently ſays, Maid, thy Miſtreſs goes up and down; and ſhe anſwers, yes Sir, and imagins no leſs now, but that I perceive the Idea or Shape of her Miſtreſs in the Water, and thinks that I can tell any thing elſe by the ſame, ſo that I ſhall not now need to trouble my ſelf in asking her any more Queſtions; for ſhe tells me that her Miſtreſs goes up and down indeed, and that I had ſaid very right, and tells him that her Miſtreſs deſired that he would certifie her whether ſhe were with Child or no, ſo now he ſets down the Urinal in the Window, and tells her it muſt ſtand ſo a little while and ſettle, and then he will tell her preſently. In the mean Time he falls to parly with the Maid, and asks her whether her Miſtreſs has had any Child or no, and how long, if ſhe has, it is ſince ſhe had one, and ſhe ſays, a Year, a Year and an Half, or almoſt two Years, and indeed moſt childing Women go a Year, or near upon, and many a Year and Half, and ſome two Years, before they conceive with Child again, eſpecially if they nurſe their Children themſelves. He likewiſe asks her, if ſhe can tell if her Miſtreſs has her natural Courſes Monthly or no, or when ſhe had them; to which ſhe anſwers, that her Miſtreſs bids her tell him that ſhe hath not had them this ten Weeks, and therefore ſays ſhe thinks ſhe is with Child, but would deſire him to reſolve her, and he may quickly do it, without any more looking upon the Water; for the Tale that the Wench has told, ſhews plainly that ſhe is with Child, and the ſudden ſtopping of the Courſes in a married Woman that enjoyed them Monthly before, is the moſt certain Token in the World that a Woman is with Child. It is likewiſe the apteſt Time for a Woman to conceive immediately after ſhe hath had them, nor can he, nor any other Phyſician tell, but by this Token agreeing with other Signs of Conception, which the Water ſhews not, whether the Woman be with Child or no,

and

and yet for Faſhions Sake, he takes the Urinal in his Hand again, and falls to peering into it, as tho' he lookt for ſome little Child there, and ſays now to the Maid, that her Miſtreſs is not very well in her Stomach, hath no Appetite to Meat, is ill in her Stomach in a Morning, and apt to vomit after Meat, and ſays, that ſhe is a quarter gone with Child, as the Maid told him; he further ſays, that ſhe is with Child of a Boy, and to ſay ſo he has an even Lay, yet, leſt it ſhould prove falſe, he ſays, looking upon the Water very earneſtly, that if it had been brought when it had been warm, or when ſhe had been quick with Child, he could have told her certainly whether ſhe were with Child of a Boy or Girl; but he verily thinks it will be a Boy. So now, if it chance to be a Boy indeed, it will be granted that he knew for certain that it would be a Boy, and he ſhall be accounted one of the rareſt Doctors in the Town; but if it chance to be a Girl, the Flam that he gave the Maid, and the Truth of his Predictions in determining the Gentlewoman to be with Child, and telling her how long ſhe was gone with Child will help to bear up the other; ſo that he ſhall not have his Skill one jot abated thereby. He now therefore tells the Maid, as if ſhe were but juſt come in, that her Miſtreſs is not very well in her Stomach, has no Appetite to her Meat, is inclined to vomit after her Meat, and is a quarter gone with Child, and he thinks of a Boy, and that it is very convenient for her to take ſome corroborating Electuary to ſtrengthen and ſettle her Stomach, tho' ſhe be with Child; nay, he ſays, that it would be good, not only for her ſelf, but for her Child alſo; and he bids her tell her Miſtreſs that it will make her Child proſper the better within her, and make it the more lively, ſo that it will help it ſelf, and make her Delivery the more eaſie, and will alſo make the Child wiſe and underſtanding. So now he is ſure to get a Fee for himſelf,

ſelf, and a Feeling for his Apothecary; for what Woman would not have her Child proſper within her, and be eaſily delivered of a wiſe Child? He therefore, upon the ſecond Application, preſcribes an Electuary of Marmalade, or ſome other Confection of Quinces, with ſome Species or Conſerves to diſguiſe it, tho' Marmalade alone would have done as well, and is indeed proper to ſtop vomiting, and ſtrengthen the Stomach; but whether it will make a wiſe Child I know not.

Having diſpatched this Maid, he calls in the ſecond Meſſenger, and ſays to her, come good Woman, give give me thy Urinal, and tells her (the Urine being of ſuch a Colour as imports not an acute Diſeaſe, that is, of a high red Colour) that this Gentlewoman walks up and down, has a crude Stomach, no Appetite to Meat, and is, if ſhe feed liberally, ill after it; and by reaſon of the ill Diſpoſition of her Stomach, is often pained in the Head; and here the Woman ſtops him before he run any further (for otherwiſe he may chance to reckon up moſt of the Symptoms that accompany chronical Diſeaſes, till he hit upon that which the Meſſenger lookt for) and ſays, ſhe is troubled with a great Pain in the Head indeed, but does not much complain of her Stomach; and then he replies, that the Pain of the Head proceeds from the Stomach, and that the Stomach is always acceſſary to the Diſeaſes of the Head, and that he named the Illneſs of her Stomach firſt, becauſe it was the Cauſe of her Diſeaſe, and having once given a Deſcription of the Diſeaſe, he will be ſure to make it good, whether it be true or falſe; for if he had ſaid that ſhe had been troubled with an Obſtruction of the Liver, and Pain in the Head, the Meſſenger ſhould ſay, no Maſter Doctor, ſhe is troubled with an Illneſs and Pain in the Stomach, he will ſay it is very true indeed, and I ſhould have told you ſo, had you not interrupted me, for it comes

from

from the Head; for the Stomach and Head do mutually offend each other, and what can ſhe ſay to the contrary? And if, when he has given a Deſcription of the Diſeaſe, ſhe ſays, Sir, ſhe is much as you have ſaid; but do you not perceive ſhe has a very weak Back? to which he anſwer, yes marry has ſhe, and ſomething elſe too, which I ſhall tell you preſently: And then he takes the Urine and looks upon it, and ſhakes it together, and ſets it down in the Window to ſettle, pretending it will ſhew him ſomething elſe anon; in the mean Time he gathers, by Conference with the Meſſenger, whether it be a married Woman's or a Maiden's Water, and then he takes the Urinal and ſays, if it be a married Woman's, that ſhe has a very weak Back indeed, and that ſhe is troubled with the Whites, which is a Diſeaſe that very many Women are troubled with that complain of weak Backs. But if the Water chance to be a Maiden Gentlewoman's Water, who is either troubled with a Pain or Heat in her Back, and the Meſſenger asking if ſhe be not troubled with one of them, he preſently conjures them both in the Water.

But as to the Gentlewoman that is married, he ſays, that ſhe has a very weak Back, is troubled with the Whites, and that this Diſeaſe has hindred her being with Child; for the Meſſenger has told him before, that the Gentlewoman has not had a Child within three or four Years, and that ſhe will have no more Children, unleſs ſhe were freed of them; and now he muſt think upon ſomething to cure this Gentlewoman, for he is ſure ſhe will ſend to him again to help her to another Child: And now he is ready for the third Meſſenger, that ſaid, ſhe came from a Friend of hers. He has made this Goſſip tarry till the laſt; becauſe he was afraid ſhe would prove a croſs Piece of Fleſh to deal with; and therefore he handles her gently; for the wildeſt Colts are often tamed by gentle Means.

He ſays, Miſtreſs, I have made you tarry, but you ſhall not altogether loſe your Labour, I pray you follow me, and ſo he conducts her into his Parlour, where his Man is waiting for him, with a Tankard of Ale and a Toſt with Nutmeg and Sugar for his Mornings Draught; then he ſits down in his Chair, and ſays, here good Woman, I drink to you, and then bids her drink a hearty Draught; then he bids her mend her Draught, and tells her, that Nutmeg and Sugar in Beer in a Morning will make her Water ſweet, and thus are the perverſe Diſpoſitions of croſs Meſſengers better corrected, than the Malignity of Scamony with Aniſ-Seeds, or Rhubarb with Spike; beſides, he having drunk his Mornings Draught, which will much enable him to ſee clear, he now ſays, come good Woman, how long has your Friend been ſick? ſhe ſays, he hath not been very well a good while, and ſo offers him the Urinal: But he refuſes to take it, and ſays, becauſe I have made you ſtay ſo long, I will ſhew your Friend's Diſeaſe by the Urinal Caſe, and never look upon the Water at all, and yet I will tell you the Diſeaſe as well as he that ſhall pore and peep into the Water a Month. He now therefore takes the Urinal Caſe of her, and looks as wiſtly upon it as if it were the Urinal, and the Water in it, and preſently pronounces that the Party goes up and down, is not Heart ſick, but is faint in the Body, has a bad Stomach, lingers and pines as it were, is joyleſs and melancholy, and takes no Pleaſure in any thing; and now the Woman wonders to hear him ſay ſo, by looking only upon the Urinal Caſe, and yet what he ſays is as true as if he had lookt in the Urine. And thus the Meſſenger is ſoon caught, for he askt her before he took the Urinal Caſe of her, how long her Friend had been ſick, and ſhe told him that he had not been very well a good while; from which Anſwer I ſhall ſhew both the Sex and the Diſeaſe; for this Word, he, ſhews

him

him the Sex, and theſe Words, hath not been very well a good while, ſhew him that it is a chronical Diſeaſe, and how the Party is affected. The latter Part of her Anſwer, *viz.* A good while, ſhews that it is a Chronical Diſeaſe, and the former Part of the Words, namely, hath not been very well, does imply, lyes not by it; and that therefore he goes up and down; he has no Appetite to Meat, is faint in his Body, lingers and pines as it were, is joyleſs and melancholy, and takes no Pleaſure in any thing, as he told her before, and ſo are all they that have not been very well for a good while. But the Woman never dreams that he gathers all this from her Anſwer; becauſe he looks upon the Urinal Caſe; but thinks rather that the Urinal infected the Caſe, or elſe that he can conjure. But he will make her wonder more anon; and now he adds, that it is a Man's Water, to which ſhe anſwers, it is indeed. He further asks her how old the Party is, and according to her Anſwer, as the Parties Age ſhall agree with hers, he ſays that it is her Husband's Water, at which ſhe marvels more than at all the reſt, and ſays, it is indeed. And now ſhe is ready to put Finger in Eye, and asks him if he be not in a Conſumption, and tells him, for he did not name it, that he has a very great Cough, and asks him if he did not perceive it, then he tells her, that this Cough proceeds from an ill Stomach, which he had named, that ſends a Rheum into his Head, which deſcends thence upon the Lungs, and cauſes the ſame, and now he comes nearer to the Matter, and tells her her Husband is inclined to a Conſumption, but yet that he hopes he may be recover'd, and ſays, he will uſe the beſt Means that may be to reſtore him; he alſo asks her why ſhe ſo long deferred the coming to a Phyſician? and ſhe ſays, that her Husband had thought to have wore it out, as they all think to do. And now he bethinks himſelf of *aurum potabile*, ſome Liquor of Life of a great Price, ſome Conſumpti-

on Powder of twenty or thirty Shillings an Ounce, or ſome ſuch Receipt, which no body has but himſelf, than which there is no greater Secret in the World.

And by theſe Fallacies and deceitful Juglings, and far worſe Shifts than I have here ſet down, has this baſe Cuſtom of giving Judgment of Diſeaſes by the Sight of the Urine, been underpropt and ſupported, or elſe it had long ago been abrogated and fallen to the Ground; for there is no Knowledge of any Diſeaſe to be gathered by the Urine, ſufficient to guide the Phyſician in preſcribing Medicines to cure the ſame; and yet ſuch a baſe Cuſtom has been upholden and encouraged by our beſt Phyſicians.

CHAP. XVIII.

Of Gliſters, Vomits, Purges, Bleeding, Leeches, Baths, Frictions, Ligatures, actual and potential Cauteries, Cupping-glaſſes, and Iſſues.

A Gliſter is of good Uſe in Phyſick, and it ſerves to mollifie the Excrements, to diſcuſs Wind, and to cleanſe the Bowels from viſcid Humours, tho' their Vertue, as moſt ſuppoſe, reaches no farther than the Guts, yet a Woman has been diſordered in her Head by a Gliſter of Wine injected. Some ſay, that Opium in Gliſters procures Sleep, and *Sennertus* adviſes, in his Chapter of a Frenzy, when the Patient is very weak, to mix Opiates with Gliſters. The Quantity of the Gliſter is commonly preſcribed to fifteen or eighteen Ounces, which is often too much, when the Guts are filled with Excrements or Wind, or when the Patient is ſhort of Stature.

Gliſters, according to *Galen*, may be ſubſtituted for purging Medicines. When Purges do not their Office, Phy-

Phyſicians commonly inject a Gliſter; but ſome think that a Suppoſitory made of Honey and half a Dram of Salt is better in this Caſe.

Gliſters made of Oyl of ſweet Almonds are counted very effectual in the Cholick. A Gliſter of Tabacco is very proper to empty the Bowels. Let two Pipes be filled with Tabacco after the uſual Manner, then light them, and turn the Mouths of their Heads one upon the other, then put the ſmaller End of one up the Fundament, and holding the ſmall End of the other in your Mouth, you may blow the Smoak up into the Guts.

A Vomit works by moving inordinately the Fibres of the Nerves of the Stomach. A Vomit does not only evacuate from the Stomach, but alſo from the ſmall Guts, the *Ductus Cholidochus*, and from the pancreatic Duct. But all do not equally bear Vomits; thoſe who are narrow breaſted, that are ſubject to an Aſthma, ſpitting of Blood, vomit with great Danger: But they are of excellent Uſe when the Appetite is languid, and when the Stomach nauſeates, and when the antecedent Cauſe lurks in the Stomach; nor is vomiting ſo very dangerous a Remedy, as is commonly thought; for Reaſon and daily Experience ſhews the contrary. But frequent and difficult vomiting looſens the Tone of the Stomach, weakens the Bowels, and hurts the Head.

No purging Medicine purges electively, or is deſtined for evacuating ſome particular Humour, but works upon all the Humours, and therefore it is vain to think that Cholagogs purge only Choler, Phlegmagogs only Flegm, Melanagogs only Melancholy, Hydragogs only Water. It is alſo vain to think that a Purge is appropriated to the Head only, or to the Liver or Spleen only, or the like; for every Purge circulates with the Blood, and is carried to every Part, and works upon it.

Purg-

Purging is proper for a Cacochymy, to carry off the ill Humous. The Strength ought to be good, which may be known by the Pulſe; the Age, the Sex, the Temperament, the Habit of Body, the Cuſtom, and the like; the middle Age bears purging beſt. Infants and Old Age are purged difficultly. If Children are to be purged, the Cathartic muſt be given to the Nurſe, for ſo it is ſuckt in with the Milk, and works more kindly. Men bear purging better than Women: But ſome Women, eſpecially ſuch as have a Stoppage of their Courſes, bear ſtrong Purges. In the purging of Women you muſt take notice, that they muſt not be purged when they have their Courſes upon them, and big bellied Women are not to be purged raſhly; for there is Danger of Abortion. The ſafeſt Time of purging them is from the fourth Month to the ſeventh; but now a-days big bellied Women are purged at any Time with gentle Purges.

An hot and moiſt Temperament, and a fleſhy Habit of Body bear Purges beſt.

We muſt take notice in preſcribing a Purge, whether the Body be much bound, and if ſo, it is beſt to give a Gliſter firſt.

Some ſay that the Humours muſt not be purged till they are concocted or prepared by previous Medicines: But our modern Practice is contrary to this. The Doſe of a purging Medicine is to be found out by Experience, for the Propriety and Condition of Bodies are various; we muſt therefore ask the Patient whether he has taken a Purge at any Time when he was ſick, and whether it wrought enough, and according to Deſire or not; if you underſtand that the Patient is eaſie to work upon, then uſe the more gentle means, or a ſmaller Doſe.

Some add Narcotics with Cathartics, and it has been found by Experience, that after a gentle Sleep, a moſt ſucceſsful Excluſion of Humours has followed.

For

For a Pain in the Stomach, or the Cholic, the following Pills are very proper.

Take of the beſt Aloes one Dram, of Laudanum opiatum four Grains, of Diagrydium ſix Grains, mix them, and make Pills to be given at a convenient Time.

They allay the Pain in an Hour, and afterwards evacuate the Humours.

Pills are the longeſt in working, Powders next, then Electuaries; but the quickeſt of all are Potions.

Melancholy and mad People require ſtrong Purges.

It is ill to feed freely after a Purge hath done working, and it was uſual with the Ancients to omit their Dinner on the Day they took a Purge.

If a Purge work not in four or five Hours, adviſe ſtirring about, and if there be no Fever, give two or three Pills of Aloes, hot Broath, half an Ounce of white Tartar finely powdered in Broath, or a common Gliſter.

Thoſe who have been ſubject to the Falling-ſickneſs, Palſy, Stone, Hypochondriac Melancholy, ſuch as have had the French-pox, inveterate Itch, Scabs, Leproſie, or Scurvy, and thoſe that have ſome uſual Evacuation ſtopt, as the Terms, Hemorrhoids, an old Ulcer, or a wonted Flux, or have a conſiderable Member cut off; theſe and ſuch like, if they will conſult for their own Safety and Life, ought to purge while they are in Health, to prevent Diſeaſes.

It is very proper after Purges, eſpecially in hyſteric and hypochondriac Caſes, in the Cholic and the like, to give an Anodyne at Bed-time.

Bleeding is a very ancient Remedy, uſed by all Nations, and there are few Diſeaſes wherein it is not indicated, if the Strength be ſufficient; but eſpecially when the Quantity of it is too great, or when it is extravaſated upon ſome Part, or coagulated. The Ancients

ents were wont to reckon three Sorts of bleeding, one for Evacuation, another for Revulſion, and the third for Derivation: But I admit but of one, and that is of Evacuation, and that does all; for when Part of it is evacuated, the reſt is better contained in the Veſſels, and circulates better, ſo that Fluxion is prevented, and an Inflammation, and the Veins being emptied, that Blood which is extravaſated is the eaſier recalled, as in a Quinſy, Peripneumonia, Pleuriſy, and other Inflammations.

Some reckon there is a great Difference about the Veins that are to be opened; for they think that ſome above others do evacuate a certain Part, and therefore they have called ſome Veins Cephalic, ſome Hepatic, ſome Iſchiadiac, and the like: But one would think theſe neither underſtand Anatomy nor Circulation; for otherwiſe they would know that the Veins communicate with the Arteries, and like ſo many Rivulets, take their Riſe from the ſame Fountain; and therefore it is no matter of which ſide the Vein is opened, or which it is, only that which is largeſt and the moſt commodiouſly opened is to be choſen: But in an Obſtruction of the Courſes, a Vein of the Foot muſt be opened; becauſe thereby the Flux of them is promoted, and ſuch Obſtructions are often turned this way.

The Veins which are wont to be opened in the Head are the Jugular, the Temporal, the Vein of the Forehead, and that under the Tongue; in the Arm, the Cephalic, Middle, and Baſilic; in the Hand, the Salvatella and Cephalic; in the Foot, the Iſchiadiac.

In opening theſe Veins, Care muſt be taken that the Nerve or Tendon lying under be not hurt, leſt Convulſions, and other grievous Accidents, or Death ſhould follow. Care ſhould be alſo taken that the Artery lying under be not hurt, for ſo an Aneuriſm will be occaſioned, and in cloſing the Wound you muſt not

leave

leave any Blood in the Lips of it, leſt an Inflammation ſhould ariſe; but you muſt waſh it well out, and bind it up. Care muſt be alſo taken that a Vein be not opened raſhly in the Plague, Small-pox, Petechial, and Malignant Fevers, leſt the Malignity ſhould ſtrike in and kill the Patient, nor in the State of Fevers, nor in the cold Fit of Agues, nor in great bellied Women, eſpecially at the Beginning or End of their going with Child. Moreover, Women with Child muſt not be blooded in the Foot, in the Arm there is leſs Danger; and now many Women are wont to bleed when they are with Child, thinking that it is good for the Child's Health, and indeed it often ſucceeds very well.

Too much Blood muſt not be taken away at a time. You never ought to take away above a Pound at one time, nor ſo much but in extraordinary Caſes. The common Quantities are ſeven, eight, nine or ten Ounces, and it is better to repeat bleeding, than to take away too much at a time.

You ought not to bleed till the Blood turns to a better Colour, as the Cuſtom of ſome is; for ſometimes that which come out firſt is red, and that which follows is of another Colour, and if you would continue bleeding till the Colour change better, the Patient's Life will be endangered; and you ought never to bleed till the Patient faints, as is the Cuſtom of ſome. It is beſt to receive the Blood in Porringers, that the exact Quantity of it may be known.

Old Men and Children do not bear bleeding well, yet ſometimes they muſt be blooded in a Quinſey, Pleuriſie, or the like.

More Blood may be taken away from fleſhy People than from fat; alſo from ſuch as are thin, if they have not been rendred ſo by a ſpare Diet and much Labour, for ſuch have moſt Blood.

Some

Some Phyſicians give a Gliſter before bleeding, but it is not neceſſary.

Many will not bleed in the Dog-days, as if there were ſomething ſpecial then that oppoſed it: But the Heat of that Time, and the Diſſipation of the Strength thereby are the only things to be minded, for if the Weather be then temperate, or if Neceſſity urge, you may bleed.

The Jugular Veins may be ſafely opened notwithſtanding the Prejudice of the common People, becauſe the Veins are large, and there is neither Nerve nor Artery under them.

It is thought proper to ſleep an Hour or two after bleeding, to recover the Strength, tho' it has been formerly reckoned hazardous.

It is certain that bleeding is profitable againſt a Plethora, whether already compleat, or but a beginning; for the Miſchiefs of a Plethora cannot be better taken awak or prevented by any other Remedy; yet we ſhould avoid this Evacuation as much as we may, becauſe the Blood thereby becomes more ſulphureous, and leſs ſalt, and therefore almoſt all Perſons are apt thereupon to fall into Fevers, and to grow fat. Moreover, bleeding being a great Remedy, if it be proſtituted to every little Occaſion, it will become leſs profitable when there is need to uſe it for great Diſeaſes, to which this may be added, that according to the vulgar Obſervation, the more familiarly any one uſes bleeding, the oftner he ſhall need it, becauſe Blood being often let to avoid a Plethora, the reſt of the Maſs will the ſooner riſe again to a Plethora, far otherwiſe than ſome think, who fear leſt the Store of the Blood ſhould be waſted by bleeding, ſeeing on the contrary by this means its Quantity becomes larger, tho its Craſis be worſe; for thus the Blood being ſpoiled of its balſamic Salt, and of its Salt that preſerves it from Putrefaction, is inſtead thereof ſaturated with a fatening Sulphur.

Ga-

Galen says, that Old Age does not forbid bleeding; you shall open a Vein in Men of seventy, says he, if the Disease require it; for there are some even of this Age that have much Blood, and are brisk, wherefore you ought not only to have regard to the Number of Years, which some do, but also to the Habit of the Body, for there are some that cannot endure bleeding at sixty, whereas there are others that can bear it at seventy; however less Blood must be taken from these than from young People. If therefore a brisk old Man be afflicted with a Pleurisie, Peripneumony, a burning Fever, or the like, there is no doubt but he may and ought to be let blood, seeing without that Remedy, such Diseases can hardly ever be cured, and if they are not able to endure the Remedy, they must necessarily perish. An old Man of seventy three Years of Age has been let blood four times in three Days, and lost thirty Ounces of Blood; and tho' the Ancients thought Infancy and Old Age could not bear this kind of Remedy, yet it matters not what the Age is, but what the Strength is; therefore if a young Man be weak, it is bad to let him blood, but a lusty Boy, and a hearty brisk old Man do safely admit of bleeding; a Child seven Weeks old was taken with a cruel Pleurisy, the Signs whereof were a violent Cough, an acute Fever, and when he was laid down in his Cradle, or held in Arms, if he were touched never so lightly on the right Side, after having coughed a little, he would cry very vehemently, with Difficulty of breathing; in this case two Leeches were applyed to the bending of the right Arm, and two Ounces of Blood were taken away, which Remedy was of that Efficacy, that the Child was quite cured the same Day of this dangerous Disease.

An Idiosyncrasy, or the singular Property of each ones Nature, makes some to endure any bleeding well, and others neither that which is large nor indifferent; yea,

yea, ſome are afraid and diſcouraged at the very mentioning of it, and ſwoon as ſoon as they are pricked.

He that would determine the Quantity of Blood that is to be let, ought to conſider the Country, the Strength and Plenitude of the Body. In hot Countries that are near to the Meridian, large bleeding is not ſo well born as in the middle Climates. The *French*, eſpecially in *Paris*, bleed very largely; but colder Countries that are nearer the North, ſeem not to bear ſuch large Evacuations of the Blood ſo well, whether the Fevers be acute, continual, or intermittent.

Letting of blood may breed a Cuſtom; thus the *Æthiopians*, who uſe often to ſcarifie their Foreheads, their Forehead itches, and Blood is redundant; as likewiſe does the Shoulder Blade and Arm in thoſe who have been uſed to be ſcarified or bleed in thoſe Parts; for the emptied Part draws from the whole, and Nature endeavours to unburthen her ſelf by that Part which uſes to be opened.

If in the Middle of a Diſeaſe, or at the Beginning, Blood begins to flow out of the Womb, Phyſicians lay ſo great Streſs upon the Benefit of that Region, that tho' it flows out at an uſual Time, meerly ſymptomatically, they dare not uſe any other Evacuation which may ſtay that Fluxion, whence it comes to paſs, that in the Cure of acute Diſeaſes, they often incur great Danger by ſuch Scruple, as when in the Beginning of a Pleuriſie, or Peripneumony, or burning Fever, the Terms begin to flow, there are few who do not let ſlip the Opportunity of letting blood, or if in any acute Diſeaſe they dare do it, they do it in the Foot, induced, as I ſupppoſe, by the Benefits of that Region, and being affrighted by the Dangers that are wont to happen, upon the Suppreſſion of the Terms; but it does not become Artiſts to receive any Matter ſo indiſtinctly: That Evacuation of Blood by the Womb which is natural, is indeed profitable unto Women upon

on many Accounts, and is generally ſuppreſſed with great Prejudice; yet that Evacuation is not always made with a like Benefit; and therefore it is neither ſtopt always with the ſame Danger; but the like happens commonly in this, as in other Evacuations; we muſt therefore conſider not only from whence the Blood flows, but whether it flows ſeaſonably, that is, whether at that time, when there may be made a *Criſis* of the Diſeaſe, and when the Terms uſe to flow, or whether at neither of theſe times, but while the Diſeaſe is yet crude, and the Month is not yet quite come about, or whether it be come about, but the Diſeaſe is not ripe for a *Criſis*, or whether it be ripe for a *Criſis*, but the Month is not yet come about; for if the firſt happens, you may eſteem the Evacuation to be very ſeaſonable, and that the menſtrual Evacuation of the Body, and the Solution of the Diſeaſe have happily jumpt upon the ſame time; you ſhall therefore give way to ſuch an Evacuation, if it be made entirely, if not, you muſt help it by all means; therefore you ſhall open no Vein, or if you do, it muſt be in the Leg. But if the Evacuation be ſeaſonable upon neither Account, then matter it not, but let blood where, and as much as the Diſeaſe requires, abating only ſo much of the Quantity as you think may be ſupplied by the Fluxion that caſually happens; therefore if it be a Pleuriſie, let blood in the Arm, not mattering tho' it flow out of the Womb, if the Evacuation come before the uſual Day of the Month, and yet happen fitly for a *Criſis* of the Diſeaſe, the Rule of a ſeaſonable *Criſis* ſhall be obſerved to let it alone if the Flux be large enough, if not you muſt help it; but you muſt not hinder or divert it upon any Account, nor muſt you attempt another Evacuation, and if it be unſeaſonable for the Diſeaſe, but comes at a due Time of the Month, if ſo be the Diſeaſe be indifferent to upper or lower Evacuations, as ſuppoſe the Stone in the Kidnies, or

be without a certain Seat, as a Fever, Blood ſhall be let out of the Leg, if there be need to let it: But if the Diſeaſe require Evacuation by the upper Parts, and be urgent, the Phyſician may bleed alternately above and below.

Bleeding by a large Orifice helps more than bleeding by a ſtraight, when the Quantity of the Blood that is let is equal, becauſe it has made a more ſudden Change in the Body, when the Blood is poured out by a large Hole.

Some eſteem ſo much the firſt time one is let blood, that they will not uſe it but in great Caſes; becauſe they think, that like an unuſual and firſt Remedy, it may cure a Man of great Diſeaſes, and this vulgar Opinion ſeems to be juſtified by what *Hippocrates* writes of the firſt Eruption of the Terms, and the firſt Copulation; and *Celſus* ſays, if any Kind of Diſeaſe happens in Infancy, and ends neither when a Man comes to Maturity, nor upon the firſt Coition, nor in a Woman upon the firſt flowing of her Terms, the ſame is generally of long Continuance.

It is diſcuſſed by ſome later Phyſicians, how long we muſt abſtain from Meat after bleeding. *Galen*, after having bled a young Man ſick of a Synochus without Putrefaction, gave ſome Food two Hours after. Others have ſaid that we may allow Victuals one Hour or two after bleeding, tho not much: But this is a thing for the Phyſician to gueſs at, according to the Quantity of Blood that is let, and the Strength of the Patient's Faculties; for *Galen* ſtayed two Hours, becauſe he let blood very plentifully, whereby his Strength and Spirits were weakened, ſo that he fainted away. But we that bleed far more ſparingly, and do not ſo much diminiſh the Heat, Spirits, and Strength, have no reaſon to tarry ſo long.

In the Diſeaſes of Children, and of Women with Child, the Phyſician conſults well for himſelf, and his Pa-

Patients, if he be preſent when they are to be bled; for thoſe who are intruſted with that Operation, being too bold, do ſuffer the Blood to iſſue out too largely, and if any unfortunate thing happen, it is preſently aſcribed to the Phyſician.

When a Fillet is tyed about any Member, and the Vein that uſes to be found in that Part does not appear, but ſomething that is round is felt deep under the Skin, of which you doubt whether it be a Vein or not, preſently looſen the Fillet, if it be a Vein, it alſo growing lax, will fall down, and be no longer perceived by your Finger till you bind the Member again: but if, when the Fillet is looſened, that which you touched feels as it did before it was tyed, then uſe not your Lancet, for it is not a Vein but a Tendon, or the Head of a Muſcle, or ſomething beſide a Vein, and the Arteries beat where they are, whereby both their Situation and Depth become manifeſt, even to a meanly experienced Artiſt.

If when you have occaſion to bleed, the Vein do not appear, a large Cupping-glaſs, with much Flame is to be fixed upon the Part, and that will make the Vein ſhew it ſelf.

In bleeding there often happens a ſwooning or fainting away, which uſes to cauſe greater Fear in thoſe who are preſent, yea, in Phyſicians that are young Practitioners, than Harm to the Patient: This happens not thro' the Fault of the Artiſt, but the Softneſs of the Patient's Mind, which too readily diſturbs the Spirits; but this may be eaſily prevented, if the Patient lye along, and hold ſome Water or Wine in his Mouth whilſt the Vein is cut and the Blood flows out; if he faint notwithſtanding, ſtop the Blood by laying your Thumb upon the Orifice, and ſprinkle his Face preſently with cold Water. If the fainting continue, pinch his Noſe alſo, and when the fainting is over, taking off your Thumb, let as much Blood be taken

as ſeems good to the prudent Artiſt, and ceaſe not to bleed as the over-fearful uſe often to do.

We uſe Leeches where Bleeding and Cupping-glaſſes cannot be applied, as to the Noſe, Lips, Fingers, and Toes, Womb, Anus, and the like; alſo to Children and others from whom but a little Blood ought to be taken.

The beſt Leeches are in clear Water, of moderate Bigneſs, and of a liver Colour, the Belly reddiſh, the Back greeniſh with golden Streaks; the reſt are venomous, eſpecially thoſe that are brown, thick-headed, and that live in impure Waters. Theſe little Animals have little ſharp Teeth, whereby they bite and ſtick to the Skin of Men and other Animals. That they may ſuck the greedier, anoint the Part with a Drop of Pigeons Blood, or of the Blood of a Chick, or rub the Part gently, or prick it a little, and hold them with a Rag, and not with the naked Hand. When they ſtick, if you deſign to bleed freely, you muſt cut off their Tails, for ſo the Blood will drop from them; you muſt take care that none of their Teeth remain in the Part, for ſo the VVound is made incurable, and Death often follows; it is therefore better to let them ſuck till they are ſatiated, and till they fall off of themſelves, or you may ſprinkle Salt upon their Heads to haſten their falling off, and inſtead of them you may apply others to evacuate a ſufficient Quantity of Blood.

Our Surgeons and Apothecaries provide Yearly a great Stock of them, and keep them in Glaſſes, caſting in a little Sugar ſometimes to nouriſh them. But it may be doubted whether they are made better by this means, perhaps they become more virulent, and worſe hereby. It is falſe, that being applied to the Anus, they ſuck away melancholy Blood from the external or internal hemorrhoidal Veins; for firſt, that Vein has not more melancholy Blood in it than any other, nei-

neither do they carry it from the Spleen, as the Ancients thought; yea, the Spleen is not the Receptacle of Melancholy, as the Ancients thought.

If Leeches are to be applied to the hemorrhoidal Veins, firſt let the Fundament be fomented with a Decoction of Mallows, or the like.

Cupping-glaſſes are made of Glaſs or Horn, or the like; they are to be applied to carnous Parts, and ſtick cloſe to them: They muſt not be applied upon Tendons or Arteries. They are to be applied after the Part is well rubbed with a linnen Rag. Thoſe that work without Fire are either made of Horn or Wood, and a Hole is in the End of them, through which the Air is drawn, when they are placed upon the Part. Thoſe which are applied with Fire have a little Flax in them, which is to be fired juſt as they are about to be put on: But leſt the Flax ſhould burn the Fleſh, it is faſtened to the Bottom of the Cupping-glaſs with a little Wax or Turpentine. Thoſe which are without Scarification draw out only the Blood and Humours from the neighbouring Parts, ſo as that they may the better tranſpire through the Skin: But ſuch as are applied with Scarification ſenſibly evacuate many Ounces of Blood and Humours, and much more if a Cupping-glaſs be applied before the Scarification. The Uſe of Cupping-glaſſes is very effectual in many Caſes, eſpecially to draw out any malignant thing from the Body: But they are more painful than bleeding.

Frictions are made with hot Cloaths, with and without Pain, and till the Skin is red. The Ancients uſed them for Revulſion, ſuppoſing that ſo the Blood and other Humours about to flow to the Head might be drawn to another Part, ſuppoſe the Back or Arm; but Frictions do not operate ſo powerfully in this Caſe, as to hinder the Flux of any Humour to the Head, or if they do any ſuch thing, it is of ſo little Duration

and Efficacy that it does not deſerve the Name of Revulſion; therefore I think Frictions ſerve chiefly to make the Blood flow more plentifully to the Skin, and to carry off any ill thing mixed with it through the Pores of the Skin: They alſo eaſe ſmall Pains of the Head, and aſſwage an Epileptic Fit; ſuch as are ſtrong and painful are proper for ſleepy Diſeaſes.

Frictions are alſo very proper for old Men; they hinder the Humours from falling upon the Joints, and help Digeſtion, and if performed in due Time, that is, having eaſed the Body of its Excrements, they chear the Body, and corroborate the natural Heat, and excite the vital Faculties; whence the Diſtribution and Concoction of the Food is more eaſie and ready. They are very proper for old Men in the Summer and in the Autumn, having firſt voided the Excrements of the Belly and Bladder.

The Uſe of Ligatures is rare now a-days, for they do not that which many expect from them, they are ſometimes uſed in violent Hemorrhagies, ſo the common People are wont to bind the Fingers of a VVoman that has too many of her Courſes with Silk, and the Arms and Legs for bleeding at the Noſe.

An actual Cautery is a red hot Iron of a certain Figure to burn ſome Part of the Body; it is uſed to ſtop hurt Arteries, and a Flux of Blood. It is alſo uſed for a Caries of the Bones, and to make Iſſues: But this is counted a cruel Remedy, and is therefore ſeldom uſed, eſpecially ſeeing the thing can be done by a potential Cautery.

A potential Cautery, or an Eſchareotic is of great Uſe in Phyſick for opening the Breaſt, Impoſthumes, and for taking off proud Fleſh; but Care muſt be taken of the Nerves, Tendons, and great Veſſels. Care muſt be alſo taken that the Cauſtic do not lye long, or diſſolve ſo much as to corrode the neighbouring Parts. To prevent this, Plaiſters with Holes in them are firſt

to

to be applied to the Part for a Defenſive, and the Cauſtic is put into the Hole, or it is kept cloſe by half a Nut-ſhell bound hard on.

Bliſters are alſo of the Nature of a Cauſtic, and work much after the ſame manner, only they are weaker. They are of great Uſe in malignant Fevers and ſleepy Diſeaſes, and in other Diſeaſes, when we would evacuate ſome acrid Humour from the Blood: But in the Application of them care muſt be taken of the Tendons and Nerves.

Iſſues are certain ſmall Ulcers mady by Art in divers Parts, they are made either by an actual or potential Cautery, or they are cut. They are frequently made in the Limbs, and ſometimes, tho rarely, in the Neck. In making of them have a care of the Beginning of the Muſcle, chuſe the Middle or the End of it, but always let the Place be betwixt two Muſcles, as in the Arm betwixt the Deltois and Biceps; in the Thigh in the Inſide the Diſtance of two tranſverſe Fingers above the Knee.

Iſſues evacuate noxious and ſuperfluous Humours, whilſt they diſtill betwixt the Muſcles, or are carryed about them with the Arterial Blood; therefore they are of great Uſe, and prevent Diſeaſes.

A Seton is a ſilken Thred, or a Skein of Silk waxed, and with a Needle, conveyed through the Fleſh. It is made in the Neck, betwixt the firſt Vertebra and the fifth, alſo in the Legs and Arm; at the Beginning you muſt provide againſt an Inflammation; therefore apply Digeſtives. The Skein muſt be dayly moved till the Diſeaſe ceaſes; it works more powerfully than an Iſſue, but is much more troubleſome, and therefore is ſeldom ordered till that has been found ineffectual.

The general Ends of Iſſues is the Evacuation of Matter offending and dayly accruing.

Iſſues as well as Bliſters drain out whatſoever Humours are fixed within the Skin, and anticipate morbific Humours that are wont to be carried to other Parts that were before weak and long afflicted, and ſo free ſometimes one Part, ſometimes another, and like a Bullwark defend them from the Enemy; hence the Matter, whether arthritic or nephritic, or colical, yea ſometimes the paralitic or the ſcorbutic Matter as it paſſes out of its Fountains to its Neſts, or diſeaſed Parts is often intercepted, and ſo is carried out. Iſſues alſo, like VVater-furrows, made to drain the Ouzineſs of the Earth do by little and little drain out the Humours that are ſettled in any Part or Region of the Body, and are there doing Harm, and ſo they either prevent or cure a morbific Diſpoſition.

From theſe various ways of helping, whereby Iſſues are wont in general to profit, it is eaſily gathered for what Diſeaſes they are chiefly requiſite; for tho there be almoſt no Diſeaſe to which this Remedy is either hurtful or unprofitable, yet it ſeems more neceſſary in ſome Caſes than in others, it is commonly preſcribed for almoſt all Diſeaſes of the Head both internal and external, for the convulſive Motions of Infants and Children, for their Ophthalmy and ſtrumous Humours; nor is this Remedy in leſs Repute for Diſeaſes of the Breaſt, as alſo for thoſe of the lower Belly: But however profitable and benign it be of it ſelf, it is not agreeable for all; for there are two Sorts of Men, who tho they are diſeaſed, may not have Iſſues, namely, becauſe it evacuates too much in ſome, and in others leſs than it ought, and in the mean time is very painful. Firſt, it is not convenient when it evacuates too much, or ſpends the Moiſture of the Spirits. It has been obſerved in ſome, that an Iſſue made in any Part of the Body pours out an Ichor immoderate in Quantity, and vitious in Quality, which is thin and ſtinking, and often colours the Peaſe and Coverings black

black, and by the too great Flux thereof, the Strength and Fleſh are waſted; for the corruptive Teint of the Iſſue being communicated to the Blood, does in ſome ſort deprave the whole Maſs, whereby it is rendred leſs nutritious. Secondly, Iſſues are forbidden, ſome on another, and indeed, on a different Account, namely, becauſe when they evacuate little or nothing, they vex and pain very much the Part wherein they are made; for ſuch as are of a choleric and hot Temper have the their Maſs of Blood thicker, and leſs diluted with Serum than it ſhould be, and the Frame of it too ſtrict; and ſuch a Solution of Continuity being made and continued for the Iſſue, the Blood it ſelf ſticks in the Paſſage, and ſo being extravaſated, cauſes a very painful Inflammation, and in the mean while, ſeeing ſuch an Iſſue pours out but very little Ichor, it is as unprofitable as troubleſome.

For Diſeaſes of the Breaſt Iſſues between the Shoulder-blades, as alſo in the Arm or Leg are good to evacuate and anticipate the Humours that are flowing towards the Lungs, as alſo to call out thoſe that are already depoſited there.

We know by Experience how an Iſſue made in the Thorax it ſelf, between the Rips, does ſometimes more immediately derive the tabific Matter from the Lungs. *Aquapent* orders the making two Iſſues in the Hollow under the Middle of the Collar Bones againſt Diſtillations upon the Breaſt.

By an Iſſue in the Groin is ſometimes happily cured, a great Lumbago or Pain in the Loins, when it would yield to no other Remedy, alſo an inveterate Sciatica; for the glandulous Emunctories that are in that Place imbibe very many Recrements of the Blood and nervous Liquor, which if they be forthwith and continually ſent from them by a fit Emiſſary, muſt needs contribute much to free the neighbouring Parts from any morbific Minerals. Such have Iſſues made in the Groin

as

as are not married, and ſuch as are well in Years. They are approved for the Cholic and Pains of the Bladder, for the Gout, and a ſtubborn Itch.

Some in *England* are of Opinion that an Iſſue diſpoſes to Barrenneſs, on which Account married Women, and ſuch as deſign Children, are ſtrictly forbid the Uſe of them, and certain barren Women that had Iſſues are alledged; it were eaſie to mention many more barren Women that have no Iſſues, and many fruitful Women that have.

Let the Bandage of the Iſſue be moderately tyed, for a looſe Bandage keeps not the Pea in the Iſſue, and a too ſtrict one preſſes out all the Moiſture, and cauſes the Iſſue to become quite dry. A Lady wore an Iſſue in her left Arm for many Years with very great Benefit, but by a too ſtrict Bandage the Place of the Iſſue was ſo compreſſed, that there ſeemed to be nothing but Skin and Bone, and upon leaving the Fillet off, and by applying only a ſtrengthening Plaiſter, the Iſſue ran very well.

Before an Iſſue is dryed up, you muſt conſider the Age, the Conſtitution of the Body, the Matter offending, the Part ſending, and the Part receiving. If an Infant being troubled with the Falling-ſickneſs, for inſtance, an Iſſue be made in the Nape of the Neck, and a regular Diet withall be preſcribed the Nurſe, and fitting Medicines given, whereby the Fuel of the Diſeaſe may be ſubſtracted, and the Head ſtrengthened, ſo that there be no Suſpicion of the Return of the Malady for a Year together, the Iſſue may be ſafely cloſed up; for if it ſhould be continued any longer, the good Juices may flow out as well as the bad, and the Part may be debilitated. In a Man of middle Age, his preſent State is to be compared with the former, which if it be become better, and while the Iſſue has ran he has not ſuffered a Relapſe, it may by little and little be obliterated in the Nape of the Neck, or in the

the fore Part of the Head, by lessening the Pea by degrees, and a new one may be made in the Arm for Security, which also for a while may be dryed up. But let old Men wear them to the last, namely, those whose natural Heat is weak, and in whom there flows out Plenty of Matter. We must consider also in Women with Child, whether the innate Heat be so brisk, as altogether to consume the morbific Matter, or whether the offending Matter find some other Way. From all which we may infer that there is no definite Time of wearing an Issue, and that Death does not always follow closing them up.

The Ancients practised Scarification far more confidently and frequently than we now a-days, who use it in no other Cases than in the Application of Cupping-glasses, and in the Cure of Gangreens: But it is of wonderful Efficacy to ease all Pains that invade the outward Part of the Body: One being afflicted Night and Day for many Months together with venereal Pains in his Leg, and could be eased by no Medicines, was cured by the Help of Scarification.

The *Ægyptians* used to scarifie the Skin in very many Places.

Baths, as they are very profitable used aright, so they are dangerous used amiss: For some are to be bathed gently, some more strongly. The Ancients were wont in Baths to use hard Scrapers made of Stone, or of some Metal, or of the hardest Woods, to cleanse off the Filth from the Skin: But those who are to be used more gently, must dry their Bodies only with wiping them with Sponges or linnen Cloaths.

Bathing wears off Lassitudes, for it supples the Joints, and loosens the Skin; wherefore whether a Man be troubled with spontaneous or nonspontaneous Lassitudes, he can use nothing better than a Bath, unless there be either such a Fullness or Badness of Humours, that it is fitting to bleed or purge first.

Bath-

Bathing after a long Journey takes off Weariness.

CHAP. XIX.

Of Alexipharmics, Cordials, Diaphoretics, Diuretics, and Anodynes.

THoſe are reckoned for Cordials that aſſiſt the Heart labouring in any kind; wherefore one is ſaid by Authors notably to ſtrengthen the Heart, another to keep it unhurt by any Putrefaction, others to relieve a weak oppreſſed Heart, to cure its *Tremor* or Fainting, and to preſerve it from Corruption. Moreover, becauſe in the Plague, Small-pox, and malignant Fevers, the Heart is believed to be ſeized or beſet with Poyſon or Malignity; therefore the Remedies that are wont to help in theſe Diſeaſes are not called ſimply Cordials, but Alexiteries, and Alexipharmics. This Opinion concerning both Cordial and Alexiterial Medicines ſeems to riſe from hence, in as much as the Heart is commonly believed to be the Beginning of all Life and Heat, and that therefore our Health and Death depend on its immediate Affection, hence what things ſoever recreate the Soul are ſuppoſed to do it, as they are benign and friendly to the Heart.

As to Cordials, by which the too ſtrait Frame of the effervеſcing Blood is looſened and opened for the ſetting at Liberty the febrile Matter, and other Recrements, thoſe are of Affinity with ſome Diuretics and Diaphoretics, yea, ſometimes they are of common or reciprocal Uſe, in as much as the vitiated Craſis of the Blood ſometimes cannot be relieved, unleſs its Frame being firſt unlocked, there lye open an Exit for diſcharging the Serum by the Reins, or the Pores of the

the Skin. Saline Medicines do chiefly execute all these Intentions of Cure; for the opening of any Body, whether liquid or solid, is hardly performed but by a saline Key; for commonly all Concretion or Compaction is from a Salt of one Sort, and the Dissolution from some of another Sort that snatches into its Embraces the first Salt; therefore we reckon Salines among Cordials, no less than among Diuretics and Diaphoretics; because there is the same Reason in all. In the first Rank Cordials indued with a volatile Salt offer themselves, and are justly preferrable to all the rest, as Spirit of Harts-horn, of Blood, of Sal-armoniac, the Spirit of Sculls, the Salt of Vipers, and the Powder of Toads; such Remedies as these have recalled many from the very Jaws of Death.

The second Place among Saline Cordials is of Right owing to Remedies indued with an Alcalizat Salt; for these are commonly reputed notable Cordials; of this Sort are the Bezoar Stone, Pearls, Corals, the Bone of a Stag's Heart, the Horn of the same, the Powder of Ivory, the Eyes and Claws of Crabs, and other Powders of Stones and Shells, which common Experience witnesses to be often given with Benefit. To this Classis of Cordials are Bole-armenic, Lemnian, and sealed Earths, and other chalky Medicines deservedly referred, but not upon the Account that they succour the labouring Heart, but because they destroy the predominancies of an acid or fixed Salt, either in the Bowels or in the Mass of Blood, and correct the Enormities produced thereby.

Acid Medicines, or such as are indued with a fluid Salt are to be reckoned in the List of Cordials, for these are esteemed by most to be notable Alexiteries against the Pestilence, wherefore in the Cure of malignant Fevers, Treacle and Bezoartic Vinegars are highly cryed up, yea, Vinegar or acid things are usual Ingredients in Waters distilled for the same Use:

For

For the ſame Reaſon Spirit of Vitriol, the Juice of Citron, Sorrel, Pomgranates, and the like, are reckoned for Cordials, and Alexiteries, and that indeed juſtly; becauſe theſe do excellently diſſolve the Combinations of fixed Salts with aduſt Sulphur; and therefore, by ſuch Remedies as theſe, the Coagulations and Extravaſations of the Blood that uſe to happen in malignant Fevers are often prevented or cured. For the ſame Reaſons for which the foreſaid ſaline Medicines are reckoned for Cordials, others alſo, whoſe Baſis is a fixt Salt, are reputed ſuch, or are put into their Compoſitions; for ſeeing Salts of divers Sorts are bred in our Body, and they commonly paſs from one State to another, hence not one Kind of Salt, but Salts of different Kinds ought to be given according as the Intention is. A nitrous Salt is alſo juſtly numbred amongſt Cordials, and is accounted a famous Antipuretic, in that it takes away Thirſt, and bridles the febrile Heat.

Moreover, ſome Medicines have the Name of Cordials, becauſe they exert their Virtues upon the Spirits, and more immediately than upon the Blood. Theſe Medicines are fitly enough reduced to two Heads, and as they are gentle or rugged, attain the ſame Scope, namely, they either erect and confirm the animal Spirits by cheriſhing, and as it were, gently and ſoftly ſtroaking of them, or elſe by vexing, and as it were, ſpurring of them, they drive them into quicker, and ſometimes more regular Motions. The Cordials of the firſt Sort, as ſoon as they are ſwallowed, nay ſometimes, being but taſted, exert their Virtue, and by a grateful Appulſe, recruit the Spirits that reſide in the firſt Ways; then by the Continuity of theſe, the ſame Ovation being communicated ſucceſſively to the other Spirits, ſhortly undulates through the whole Frame of the ſenſitive Soul, ſo that both the Brain, and alſo the *Præcordia* being irritated with a fuller

fuller influx of the Spirits, exulting as it were, they perform their Functions more briskly and chearfully. For this purpoſe ſerve the Waters commonly called Cordial; alſo the preparations of Musk and Amber, and the Aromatic Powders that are mixed with them. Such things as have a grateful Savour or Smell, or are pleaſant to look upon, inaſmuch as they recreate the Animal Spirits, are reckoned alſo among Cordials. In the mean time, other Cordials of this Claſſis, the firſt ways and maſs of Blood being almoſt untouched, ſeem to operate firſt of all in the Brain; of which ſort are ſome Cephalics, as Sage, Betony, Roſemary, Vervain, and the like. There are another ſort of Cordials that operate in a different manner, and help wholly on another Account: Theſe do not gently cheriſh the Animal Spirits, and cauſe them to be expanded equally, but rather irritate them, and make them run and be carried this way and that way; and being thereby rouzed, they leave their former Diſorders, and of their own accord return into regular Order. Thus it is uſual in Swooning, Fainting, Oppreſſion, or Spaſm of the Heart; and in almoſt any other failings, languors, or irregularities of the Spirits, to give inwardly Spirits of Harts-horn, of Soot, of Sal Armoniac, or Tincture of Caſtor, or *Aſſa Fœtida*, with other Liquors: Or to hold to the Noſe theſe and the like, as eſpecially Volatile Salts, and Empyreumatical Chymical Oyls. Beſides, it may be ſometimes good in ſuddain defections of the Soul, to ſprinkle Cold Water on the Face, to pinch the Noſe, to ſhake the Body very much, and ſometimes to ſtrike a Box on the Ear: Such Adminiſtrations as theſe give help, inaſmuch as they Rouze up the Animal Spirits, being oppreſſed or diſtracted, or imployed other ways than they ſhould, and Command them to their former Offices.

Great Caution is needful, that Men indulge not themſelves too much in the uſe of Cordials; for many

ny eminent Men and Women, from the more frequent uſe of theſe, fall into this ſad Cuſtom, that it has become neceſſary to take a Draught often in a Day, either of ſome generous Wine or Spirit, or ſome ſtrong Water; yea moreover, Nature being a little accuſtomed to extraordinaries, remains not long content with the ſame, and therefore they increaſe them daily, and repeat them oftener; ſo that at length the Stomach can bear, or digeſt nothing moderate, but ſtill deſires ſtronger and hotter; and the other Viſcera, eſpecially the Liver, are ſo dryed and parched thereby, that the Blood being leſſened as to its quantity, and depraved as to its Craſis, Diſeaſes and Death ſupervene. There are ſundry occaſions that bring Men into this bad Cuſtom of ſipping Cordial Liquors; as ſudden Faintings, which are perhaps occaſioned by Grief, toilſome Labour, vaſt Sweats, or acute Pain; alſo when one has eaten ſomething that agrees not with his Stomach, and cauſes a weight and nauſeouſneſs, or when a Swooning, or Stupor, ſeems to be impendent through a ſpaſmodic diſpoſition, yea for many other cauſes it is uſual to guzzle vinous Spirits; and then after that, ſuch Cordials being taken ſometime, begin to be agreeable, and delight, the Maſs of Blood being a little more freely expanded, and kindled by every taſte of them, the whole Hypoſtaſis of the Soul is thereby amplified, and excited into a kind of Ovation; which ſubſiding again, the Soul remembring that Complacence, and being not content with her preſent State, affects the ſame again, and craves after more; wherefore upon every trouble of Body and Mind, as ſoon as the Spirits ſink a little, a Cordial Draught is preſently deſired to raiſe them again; and ſo the Fabrick of the Body is ſhattered: Nor does this evil Cuſtom prevail only among Drunken Companions, but ſometimes learned Men, and fine and ingenious Women, that they may the more improve and exhilerate their Genius,

Genius, sip often hot Spirits and Waters, or *Aqua Vitæ*, tho' it is improperly called so, and thereby undermine their Health.

When the Stomach languishes, thick Alexipharmics are more commended than Liquid, that they may stay there the longer. When the Heart is affected, Liquid are better, because they penetrate more speedily.

In Hypochondriac Cases, Cordials are sometimes to be used.

The Ancients used Leaf Gold with many Medicines, but to what purpose, unless to please the Eye, I know not; for its substance is too solid and compact to be resolved and brought to act by our Heat.

No great trust is to be had to Bezoar Stone; for if the Faculties that are ascribed to it, are granted to be true, yet because its dearness makes many that sell it endeavour to counterfeit it, we can hardly have any but what is adulterated; for the Writers of *Indian* Affairs say that it is very rare, and dearer among the *Indians*, than with us.

Harts-horn is not much worse than the Bezoar Stone, or Unicorns Horn, against Poisons, and poisonous Diseases; for it defends the Heart from malignant Vapours, it cuts the toughness of Humours, it opens obstructions of the inward Viscera; and by its penetrating quality resists the putrefaction of the Humours.

Treacle is also a great Cordial, and very proper against Poison. Many that have been subject to Swoonings, without evident cause, have bin cured by it.

Many doubt whether precious Stones have any Cordial Vertue.

Among Alexipharmics, Tormentil and Bole are worst for those that have a dry Belly; for they cause Obstructions.

Sulphureous Spirits kindle the Sulphur of the Blood; Volatile Urinous ones rarifie it, and acid Spirits tame, dull, or blunt it. All these used inwardly, restore

the heat and motion of the Blood, increaſe and invigorate its Balſamic Oleous Parts, whence Apoplectic, Hyſteric, Cordial Spirits, and the like, revive the Spirits, remove Fainting, and recall the languiſhing Faculties: But ſeeing both theſe, and the reſt, are very active, they are all of them to be given warily; for being given unſeaſonably, they fill the Head, and intoxicate, they deject the Appetite, and make Men Pthyſical and Hydropical.

Diaphoretics, as to the way of their working and operations, have great Affinity with moſt Cardiacs, commonly ſo called, inſomuch that many of both kinds are of a common or reciprocal uſe; and ſeeing they differ chiefly, only as to their greater or leſſer efficacy, when we are bound to paſs from one Genus to the other, generally we need only increaſe or leſſen the Doſe, and chuſe the fitteſt time for adminiſtring them.

As to the various kinds, and preparations of the Matter, whereof Sudorific Medicines are made, they are generally either the integral, or elementary Parts of ſome mixed Body, *viz.* Either natural Concretes are given in their whole Subſtance, either ſimple or extracted, as when the Leaves, Roots, or Seeds of *Carduus*, *Contrayerva*, *Angelica*, or the like, are taken in Powder, Decoction, Conſerve or Magiſtery; or Diaphoretics conſiſt of the Particles of this or that Element, *viz.* ſpirituous, ſulphureous, or ſaline, either ſimple, or ſome prevailing over other: As if a Salt, Spirit, or Oyl be extracted from Carduus, or other vegetable, mineral, or animal Body, and be reduced into the Form of a Medicine, either by it ſelf, or with other Preparations.

We will briefly run over all, or at leaſt the chief Species of them. Firſt, Diaphoretics, whoſe Vertue conſiſts in the Integral Particles of the whole Concrete, being unequally mixt, ſeem to be indued with ſome

one

one Element more eminent than the reſt, *viz.* a Saline, and to owe their Vertue chiefly to it. Now that Salt upon which the hydrotic Vertue depends, comes under a double State; for in ſome Concretes it is volatile and acrimonious, or bitter; in others alcalizate and fixt in a ſort; firſt, in the former Rank are moſt Vegetables eſteem'd Antidotes by the Ancients, ſuch are the Leaves of Scordium, Carduus, Scabious, Perwinkle, the Flowers of Marygold, Camomile, the Roots of Burdock, Zedoary, Galingal, and the like; alſo the Confections of Mithridate, Treacle, Diaſcordium, the Decoctions of Guiacum, Box, and the like, are reckoned among theſe. Secondly, The other ſort of Diaphoretics which, while they conſiſt of the integral Parts, of the mixt, have an alcali Salt predominant, as Stones, and the bony or ſhelly Parts of Animals and Vegetables, as Bezoar, Pearls, the Eyes and Claws of Crabs, and the like, whoſe Diaphoretic Vertue proceeds chiefly from an alcali Salt. Hydrotic Medicines alſo, which after a ſpagyrical Analyſis, owe their Vertue to this or that ſort of elementary Particles, being framed out of divers Subjects, and with a different Preparation, are chiefly either ſpirituous or ſaline, or both together combined one with another, or with ſome ſulphureous Particles; for ſuch as are wholly, or for the greateſt Part ſulphureous, are leſs proper for this Intention. To the ſpirituous we refer hot Waters, and all ſorts of Liquors indued with a vinous Spirit, ſuch as are commonly diſtilled by Chimiſtry out of the Fruits or Juices of Vegetables, or ripened by Fermentation, or reſolved by Putrefaction, as the Spirits of Wine, of the Berries of Juniper and Elder, of black Cherries, and the like. Such vinous Liquors as theſe being taken inwardly, procure Sweat.

Saline Preparations alſo of divers kinds, and different States are preſcribed ſucceſsfully for the procuring Sweat.

To Diaphoretics, whoſe Baſis are Spirits, with the other elementary Particles combined (as for example, a Dram of Mixtura Simplex in a convenient Vehicle) are referred thoſe which conſiſt of a Spirit ; a fixt Salt or Sulphur combined ; of which ſort are the Tincture of Salt of Tartar and Antimony, the Doſe whereof is from one Scruple to two in ſome Liquor. Moreover, diſtilled Waters, wherein the ſpirituous Particles are diluted with the watry, uſe to be given with Succeſs for provoking Sweat ; the Doſes of the foreſaid Waters may be actuated by the Addition of chymical Liquors or Salts. Medicines of this ſort being endued with a vinous Spirit are chiefly, and almoſt ſolely profitable for old Men, and for ſuch as are endued with a cold Temperament, or are ſubject to the Palſy or Dropſy. But in a hot Conſtitution, and where there is a Heat of the Viſcera, or a febrile Efferveſcence of the Blood, they uſe to do more Hurt than Good, in as much as they rarifie the former, and accend the latter too much. The Diaphoretics which have a ſaline Baſis, as they are of a various Nature, *viz.* accordingly, as it is a volatile, fixed, acetous, or nitrous Salt, ſo they are of a different Uſe and Operation, whence in ſome Caſes one ſort is better, and in others another, or another. A fixt and volatile Salt are beſt for thoſe whoſe Blood is very full of a ſerous Humour : Beſides, if the Liquor that waters the *Viſcera* and *Genus Nervoſum* do at any time wax eager, as it uſes to do in Dropſies and Cacochymies, and in thoſe who are ſubject to ſpaſmodic Diſeaſes ; theſe Medicines are more profitably adminiſtred for procuring Sweat. Diaphoretics alſo which have a nitrous Salt for their Baſis, ſeem to help in the ſame Caſes, almoſt as the former, conſiſting of a fixt and volatile Salt. Diaphoretics, whoſe Baſis is an acid Salt, are chiefly profitable againſt the Predominancies of a fixt Salt or Sulphur.

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Some Medicines that are wholly, or for the greateſt part ſulphureous, are commonly reckoned in the Number of Diaphoretics, as ſome natural Balſoms, and ſome factitious ones, alſo chymical Oyls, eſpecially thoſe of Guiacum, Box, Camphor, Harts-horn, and Soot; likewiſe the reſinous Extracts of heavy Woods, with many others, which tho of themſelves they conduce little towards the provoking of Sweat, yet being joined with other ſaline things, they are not altogether unprofitable, in as much as in a colder and too phlegmatic Conſtitution, ſulphureous ſaline Remedies do rarifie the over-watry Blood, and diſpoſe it to a freer Evaporation, no leſs than ſpirtuous things.

The Baſis of a ſudorific Diet-drink are the Decoctions of Liquors for the curing of the Pox, and ſome other chronical Diſeaſes deeply rooted in the Blood and Humours; for very intenſe and frequent ſweating, daily for a long time, is requiſite for the Cure of ſome Diſeaſes, *viz.* not only that the Impurities and Corruptions of the Viſcera and Humours may be carried off, but alſo, that the morbific Tinctures that are deeply imprinted thereupon may be wholly deſtroyed: For this purpoſe it will not be enough to give ſome ſudorific Powder or Bolus now and then, but an entire Diet ought to be ordered for this Intention; wherefore let all the Drink be a ſudorific Decoction, after one Doſe whereof taken in the Morning, let plentiful ſweating be provoked, making uſe beſides of the Heat of a Bath or Hot-houſe. Moreover, ſeeing by this means both the Pores of the Skin are unlockt, and Nature alſo is inclined to ſweating all the Day after, the Recrements of the Blood and nervous Juice will evaporate by Perſpiration continued all along by the Uſe of the ſame Drink. By this Method, not only the French Pox is ſafely, and for the moſt part very certainly cured, but alſo ſome other ſtubborn herculean Diſeaſes are ſometimes happily remedied.

All Humours are not profitably leſſened and evacuated by Sweat, but only ſome; not Blood nor Choler, but all ſorts of Flegm, and all Serum, as well the watry as the ſalt Muriatic, the acid and ſowr. But glutinous Flegm, ſeeing it is not ſo fit for Motion, ought firſt, or at the ſame time, to be incided, attenuated, and made fluid, that it may the more eaſily be driven forth by or with Sweat. An acid ſowr Humour ought alſo to be prepared for its Expulſion by Sweat. That the mentioned Humours are driven and expelled by the Pores of the Skin, and ſo by Sweat, appears by the Sweat it ſelf, which ſometimes comes forth glutinous, often watry and inſipid, ſometimes muriatic or brine-like, ſometimes alſo ſomewhat acid or ſowr.

There are but few true ſudorific Medicines, and among theſe Opium is the chief; for the reaſon why Treacle or Mithridate cauſe Sweat, is wholly from the Opium that is mixed with them: For theſe two Electuaries prepared without Opium do not provoke Sweat at all.

The moſt convenient Time for ſweating is the Morning, and that on an empty Stomach; for then the Sweat comes out more eaſily and plentifully. Note, that after ſweating Decoctions, purging is neceſſary to carry off the groſs Excrements.

The Origins of many Diſeaſes happen for want of a due Separation of the Serum; but as to this Separation, ſeeing there are Faults of divers Kinds, the Offence is for the moſt part either in Defect or in Exceſs; for ſometimes the Serum does too pertinaciouſly adhere to the Blood, and on the contrary, ſometimes it parts too ſoon from it, and in this regard the Blood being not able to contain the Serum, doth ſpue it out of the Mouths of the Arteries in many Places, and almoſt every where, and ſo depoſiting it in the Viſcera or Habit of the Body, occaſions an Aſcites or Anaſarca; and ſometimes, ſending it off immoderately to the Kidneys,

Kidneys, it causes a Diabetes, when the Blood is too tenacious of the Serum; for the most part it is either over-hot through a Fever, having its Frame too strict, and the thicker Particles so incorporated with it, that the thinner cannot easily get therefrom; or being filled with scorbutic Salt and Sulphur, it becomes very clammy and tenacious, so that the Serosities difficultly separate from the rest. And seeing the Departure of the Serum from the Blood is hindred or perverted so many ways, diuretic Medicines also are of a different Nature and Operation, which yet may be distinguished, first, as to the End, according to which they respect the Mass of Blood, or the Kidneys, or both together. Secondly, as to the matter, in which respect they are either sulphureous or saline; and these again are various, according as the saline Particles are in a State of Fixity, Fluor, or volatility; or are moreover nitrous or alcalizate. Thirdly, As to the Form; these Medicines are of divers Kinds, *viz.* Drinks, Powders, and the like.

When the Blood, through an Incorporation, and mutual Combination of the fixt Salt with the Sulphur and Earth becomes so thick and tenacious, that the Watry Particles do not easily part from the rest, the Diuretics, which may loosen its Frame, and fuse the Serum, must be of such a Sort as are endued with a volatile or acid Salt; for such Particles do chiefly dissolve the Combination that the fixt Salt has entred into. And seeing this Disposition is common, both to the Fever and Scurvy; in the former the most proper Diuretics are both the temperate Acids of Vegetables, and also the Salt of Nitre, the Spirit of Sea-salt, of Vitriol, and the like; likewise those endued with a volatile Salt, as the Spirit of Harts-horn, of Sal Armoniac, the Salt of the Juice of Vipers. In a scorbutical Disposition, when the Urine is both little and thick, the Juices of Herbs and acrimonious and acid Prepara-

tions are of notable Uſe, alſo the Salt and Spirit of Urine, of Sal Armoniac, of Tartar, and the like.

Sometimes the Blood keeps not its Serum long enough within its Compages, but being ſubject to Fluxions, or rather Coagulations, it depoſites the Serum here and there in great Plenty: It raiſes Catarrhs or Humours in divers Places, or the Blood being habitually weak, and inclining to Sowrneſs, is apt to coagulate as to its thicker Particles, ſo that in the Circulation, the thinner being thrown off every where, and falling upon the weaker Parts, cauſe ſometimes cephalic or thoracic Diſtempers; ſometimes an Aſcites, or Anaſarca, and from a like Cauſe we think a Diabetes alſo ſprings; for many dangerous Diſeaſes, which are erroneouſly aſcribed to the Diſcraſies of the Viſcera, ariſe from this Cauſe; namely, in as much as the Blood, being of an evil Temper, and liable to Coagulation, cannot continue the Thred of the Circulation entire, but in divers Places depoſites the Serum that is too apt to depart from it. The Diuretics to be adminiſtred in this Caſe are ſuch as do not fuſe the Blood, but take away its Coagulations, as are thoſe endued with a fixt, volatile, and alſo an alcalizate Salt. Moreover, thoſe that ſtrengthen and reſtore the Ferment of the Kidneys for theſe Purpoſes are ſulphureous, and mixt Diuretics, the lixivial Salts of Herbs, Shell-powders, the Salt and Spirit of Urine, and the like; Hog-lice, the Roots of Horſe-radiſh, the Seeds of Smallage, Nutmeg, Turpentine, and its Preparations, and the Spirit of Wine: The Vertue of all which is not to fuſe the Blood, and to precipitate the Seroſities out of its Maſs, but to diſſolve the Coagulations of the Blood, ſo that its Compages recovering an entire Mixture, and being circulated more quickly through the Veſſels, it reſorbs the Serum that was every where extravaſated and depoſited, and at length delivers it to the Kidneys to be ſent off.

Among

Among the Diuretics endued with an acid Salt, are the Spirits of Salt or Nitre, alſo the Juice of Lemons and Sorrel; white Rheniſh Wine and Cider are of greateſt Note with the Vulgar, for theſe alone fuſe the Blood, and precipitate it into its Seroſities, as when an Acid is poured into boyling Milk: But this happens not alike to all. In an healthful Conſtitution the Salt of the Blood is partly fixt, partly nitrous, and partly volatile; alſo in ſome ſcorbutical and dropſical People, it becomes commonly fixt; wherefore in all theſe Caſes, Diuretics endued with an acid Salt are given with Succeſs: But in catarrhous Diſtempers, and in ſome dropſical and ſcorbutic, when the ſaline fixt Particles of the Blood are promoted to a State of Fluor, and the volatile are depreſſed, as often happens, acetous Remedies uſe to do more Hurt than Good, in as much as they yet more pervert the Blood that is already degenerated from its right Craſis, ſo that Medicines indued with a fixt or volatile Salt will be more profitable for theſe: As for example,

Take of choice white Tartar, of Sal-prunella, each a Dram and an half, of Crabs-Eyes one Dram, make a Powder; the Doſe whereof is from half a Dram to two Scruples, in a fit Vehicle, once in ſix or eight Hours.

That Medicines indued with a fixt or lixivial Salt provoke Urine, appears plainly enough from the vulgar and empirical Remedy, that is wont to be given for the Cure of Dropſies, *viz.* it is uſual in an Anaſarca, and ſometimes in an Aſcites, when the Bowels or Fleſh ſwell very much, by a Collection of Water, to give to drink a Ly made of the Aſhes of Wormwood, Broom, or Bean-ſtalks infuſed in White-wine, whereupon it often happens that there follows a plentiful Evacuation of Urine, and the Diſeaſe is cured. Yet it has been obſerved, that in ſome, that Remedy has not proved diuretic, and has rather increaſed than cured the dropſical Diſpoſition. The Reaſon whereof

whereof appears from what has been ſaid above, *viz.* that lixivial Salts do not fuſe or precipitate either Milk or Blood, and therefore are not Diuretics in their proper Nature. Nevertheleſs that Effect ſometimes follows, in as much as a fixt Salt being taken plentifully, deſtroys the Energy of an Acid and coagulative Salt prevailing in the Blood, ſo that the Blood being before too apt to be fuſed, and not able to retain its Serum, but throwing it off in every Place, does by the Advent of a fixt Salt, recover its due Craſis, and therefore reſorbing the extravaſated Serum, and conveying it continually to the Kidneys, cauſes a plentiful Evacuation of Urine. As for example,

Take of the Salt of Tartar or Wormwood two Drams, of Coral calcined to Whiteneſs a Dram and an half, of Nutmeg half a Dram; make a Powder. The Doſe is two Scruples.

For the ſame reaſon a fixt Salt is given with Succeſs for provoking Urine. A Volatile is alſo given too, in an acetous Diſcraſy of the Blood.

It is known that Shell-powders, and ſome Stones being endued with an alcalizat Salt, do ſometimes provoke Urine; for in great Stoppages of Urine, the Powder of Egg-ſhells, of Crabs-claws or Eyes, has been a preſent Remedy to ſome. Some ſulphureous and ſpirituous Medicines are alſo reckoned Diuretics. Moſt Medicines derived from the Pine or Larch-tree, eſpecially Turpentine and its Preparations, the diſtilled Oyls of Juniper, of Nutmeg, of Wax, and other fat things taken inwardly, cauſe in moſt a plentiful Urine, and that indued with a Smell like a Violet. In ſome hydropical and ſcorbutical Perſons, the Spirit of Wine and ſtrong Waters, yea, generous Wine it ſelf being drunk largely has promoted the Evacuation of Urine. It is to be noted therefore that Diuretics are not indifferently convenient in any Diſtemper or Humour for the benefiting of the ſick, but one ſhould be

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uſed in one Diſeaſe or offending Humour, and another in another; ſome indeed are good for evacuating Choler, and others Flegm: Proper for Choler are the Juice of Citron, the Emulſion of Barly, Strawberries, the Spirit of Salt, the Salt of Tartar vitriolated, and the like; and for Flegm amongſt chimical Medicines, the volatile Salt of Urine, and all volatile Salts, the diſtilled Oyls of Juniper Berries, of Amber, and the like; yea, and alſo the Acids commended juſt now for Choler, becauſe they no leſs alter Flegm (yea, Acids drive it forth by Urine) than do Aromatics, and ſuch as conſiſt of a volatile Salt, as Experience teaches; yet the latter are for the moſt part obſerved to be the better, and fitter for reſtoring Health, ſeeing they not only correct Flegm, but alſo preſerve the Choler in its natural State; but Acids, tho' they incide Flegm, and promote its paſſing out by Urine, yet they do withall infringe Choler, and carry it from its natural State, and in that reſpect hurt.

Diuretics are moſt proper in thoſe Diſeaſes that are firmly rooted, and have their Foundation in a tartareous ſaline Droſs, in which it is profitable to evacuate by little and little the occaſional Cauſe of the Diſeaſe by the urinary Paſſages; thus in hypochondriac and ſcorbutic Diſeaſes, we empty out of the Body thoſe tartareous Humours.

Such Diuretics may be ſafely given to Infants, Children, Women with Child, as conſiſt of an abſterſive Vertue; from an Alcali, and from their kindly acrimony, they incide and purge out the Filth of the urinary Paſſages, ſuch are the Stones of Peaches, Crabs Eyes, *Lapis Judaicus*, *Nephriticus*, the Stones of Fruits, and their Aſhes. Hot and dry Bodies are not long, nor vehemently to be forced to purge by Urine, by hot diuretic Decoctions; ſeeing by their Uſe an Inflammation of the Liver, a Fever, and an Extenuation of the

the whole Body may follow; on the contrary, the fat, the cold, and ſuch as have a ſoft and looſe Skin, and abound with watry Humours, and thin Juices, are very fit to be purged by Urine.

We muſt never uſe Diuretics, eſpecially ſuch as are vehement, in Diſeaſes of the Reins and Bladder, nor in Women that are with Child, leſt they cauſe Abortion.

You muſt note, concerning cold Seeds, that their diuretic Vertue reſides moſt in their Husks.

Concerning the right Uſe of opiate Medicines, theſe four things following are to be obſerved, *viz.* before we give a narcotic Medicine, we muſt firſt conſider the Conſtitution of the Patient. Secondly, the Diſeaſe that he is ill of. Thirdly, in what State the animal Spirits are in reſpect to both animal and vital Functions. Fourthly and laſtly, in what Condition the Blood and other Humours are. As to the firſt, when an Hypnotic is indicated, ſee that the Temperament of the Patient, the Habit or Indiſpoſition of his Body, his Cuſtom, or Manner of Life do not contraindicate; as for example, thoſe who are indued with an indifferent Stature, a firm and well-ſet Body, hot Blood, a lively or ſharp Aſpect, bear this Medicine beſt; but they take it more ſecurely, if they have moreover been formerly uſed to it: But on the contrary, it is not ſo convenient, yea, ſometimes it does a great deal of hurt to them who are over-fat or lean, as likewiſe to thoſe who being either of a rare Texture, have their Spirits eaſily diſſipable, or of a cold Temperament, and have ſoft and flaggy Fleſh, and are of a ſluggiſh indocible Diſpoſition, and dull and drowſie of themſelves: To which Hindrances or Scruples this may be added, and increaſes the Weight of the reſt, *viz.* if they have never taken this Medicine before.

The Nature of the Diſeaſe is ſometimes of great moment, for or againſt Opiates; in ſlighter Diſtempers

pers it is the part of a flattering Phyſician, according to *Septalius*, to uſe them. Moreover, in ſome great ones, their Uſe is either forbidden, or is held very ſuſpected, in the Palſy, Vertigo, Night-mare, Apoplexy, alſo in the Orthopnea, or Difficulty of breathing, in a Dropſy of the Breaſt, or Abdomen, in Numneſs, or Trembling of the Joints, in very malignant Fevers, and in Fits of Agues, or in the Criſis of other Fevers, Narcotics are very often forbid. Moreover, in a Cough, with much and thick Flegm, in an Aſthma, and in whatſoever other Diſtempers of the Breaſt with Oppreſſion of the Lungs, and in hyſterical Fits, and other convulſive ones, they are but ſeldom to be given, and not without Caution, and the Advice of a skilful Phyſician: But in a cruel Head-ach, Catarrhs, Cholick, Pleuriſy, ordinary Fevers, vomiting, Dyſentery, Fits of the Stone, or Gout, and in all Pains whatſoever, Opiates are not only allowed, but we have Recourſe to them, as to divine Panaceas.

And as often as we intend to make Uſe of them, we muſt alſo conſider in what Tenor the animal Spirits are; for if being fewer, or oppreſſed, they already flag, and do not ſpread their Sails enough, certainly, they ought not to be further leſſened, and caſt down by Opiates; wherefore if ſo be the animal Faculties be not vigorous, both as to Senſe and Diſcourſe, or do not exert themſelves brisk enough, or when the Pulſe and Reſpiration have the Turns of their Reciprocations, weak or ſlower than uſual; And laſtly, if a Numneſs with Enervation ſhall ſeize upon the Members, with an unwonted Languor, we muſt wholly refrain from any hypnotic Medicine; but we ſhall not ſtick to uſe them, if they are indicated in great Diſeaſes, and if withall, the animal Spirits be ſtrong enough in theſe and other reſpects, or become too much expanded, or immoderately fierce and outragious.

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The State of the Blood and Humours is not to be neglected, becauſe ſometimes their ill Condition does wholly forbid Opiates, or ſuffers them not to be uſed, unleſs ſparingly, and with ſome Reſtriction. The Blood does contraindicate their Uſe, when it offends, either in Quantity or Quality, or Craſis: As to the former, it either abounds or is defective, and in both reſpects it hinders narcotic Remedies. Nor is there leſs Fear of Miſchief from Narcotics, as often as they are given in Defect or Penury of the Blood; as after great Hemorrhages, long Faſting, or long continued Sickneſs.

Their dayly and too frequent Uſe is to be avoided, leſt the Concoction of the Stomach be leſſened; they muſt not be given at the Beginning of a Fit, nor preſently after bleeding.

The Doſe of Opium is ordinary or extraordinary, the ordinary Doſe is threefold, low, middle, and high, and it varies much according to the Preparation of the Opium; for the Doſe is to be conſidered as the Opium is mixed and compounded with other things, or as it is ſimple; for if it be given alone, the Doſe muſt be leſs; for inſtance, in grown People, the loweſt Doſe is ordinarily a quarter or half a Grain, or one Grain, the middle two Grains, or three, the higheſt is four or five Grains. In a Compoſition you muſt conſider how much Opium is contained. Two or three Grains may be given, but four or five muſt not, unleſs the preceding Doſes were uſed without Effect.

It is to be noted, that in Practice Opium is preſcribed to eaſe Pain, to take off Watchings, and violent Symptoms, to ſtrengthen the Tone of the Parts, and to thicken the Blood when it is too thin, it is alſo mixed with Cephalics, Hyſterics, and other ſpecific Medicines, and ſometimes with Purges.

The Doſe is often extraordinarily increaſed upon the account of Cuſtom, the Violence of a Diſeaſe, and the

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Diverſity of Temperaments. It is well known that the *Turks*, *Perſians*, and other oriental People, take a Dram at a time, and they are ſo uſed to it, that they cannot abſtain from it without hazarding their Lives, and incurring grievous Symptoms. But the *Europeans* uſe it only in Medicine, and in a leſs Doſe; for if they take it freely, great Danger is occaſioned. A Perſon, by taking two and twenty Grains in a baſtard Tertian, loſt his Life; but *Charas* ſays, that he took ſix Grains, and ſlept no more than he uſed to do, and he was ſo far from being weakened thereby, that on the contrary, he found himſelf wonderfully ſtrengthened; he ſays moreover, that he knew ſome weakly Men that took thirty ſix Grains, and were not at all injured thereby. Some People that have been afflicted with violent pocky Pains in the Joints, have taken Laudanum Opiatum in Pills, beginning at five Grains, and riſing to half a Dram; and Authors relate, that ſome have taken above ten Drams dayly, and yet have kept their Senſes very well, ſo much can Cuſtom do; and a *French* Embaſſadour in *England* took four Ounces of it to make him ſleep when he was ſick. *Schenckius* ſolemnly declared to his Scholars, that he often took a Scruple of Laudanum Opiatum to reſtrain the Motion of his Blood, for he was often troubled with a ſpitting of Blood and acrid Defluxions, and he ſaid he was not much ſtupified by it. And I, ſays *Wedelius*, have often given in violent Diarrheas and Dyſenteries, and for violent Pains, and in other Caſes, ten Grains. But ſuch a high Doſe muſt be gradually aſcended to, and you muſt firſt try what a leſs will do.

For taking off Pain, Opium is the chief Medicine, and for cauſing Sleep, in doing of which it is of great Uſe; for immoderate Watchings weaken the Body, occaſion Crudities, and weaken the Faculties of the Mind; tho' it muſt be confeſſed that it does not always

ways cauſe Sleep, for ſome it always keeps awake, and ſometimes it takes off Pain, tho' the Patient does not ſleep.

It ſometimes occaſions vomiting in the Morning, in weakly and hyſteric Women; but this may be prevented by their keeping their Bed long the next Morning.

But whether Opium be proper in intermitting Fevers is a Diſpute among Authors; if we conſult the Ancients, it is certain they uſed Opiates to take off the Fits of Fevers; ſo *Hippocrates* commends the Seeds of Henbane and Mandrakes, and *Galen* on the ſame account every where commends Treacle: But concerning continual and malignant Fevers, there is yet a greater Controverſy. The Ancients allowed that Opium was alexipharmic; but if Caution be to be uſed in this matter in any Diſeaſe, certainly in theſe; for there are many and frequent Inſtances of the ill Effect of Opium in burning and malignant Fevers. Some diſtinguiſh betwixt the Times of Fevers, and they ſay, that Opiates are not proper in the Beginning or State; for by them the Humours are more diſturbed, and rendred crude, and retarded, and on this Account the Concoction and Criſis hindred, but in the Declination they are ſo far from being injurious, that being prudently given, they do a great deal of good, by quieting all things, and by reſtoring the Strength, and the Tone of the Blood. But when violent Pains and Evacuations are joined with Fevers, as Catarrhs, Coughs, Vomiting, Looſneſs, and the like, it is neceſſary to give Opiates.

They are alſo uſed in the Plague, and are properly mixed with Antidotes, and Medicines againſt Poyſon: They are alſo of great Uſe in the Small-pox and Meaſles; in a Phrenſy they appeaſe the raging Spirits. But *Sydenham* ſays, that when the Fever is high, they do no Good in a Phrenſy; but that being given opportunely

tunely in the Declination of the Diſeaſe, they are very ſucceſsful.

For Diſeaſes of the Head, they are very proper, eſpecially for the Pains of it, and an Hemicrany. An hypochondriac Man being amongſt other Symptoms, afflicted with a great Vertigo, was happily cured with Laudanum Opiatum mixed with Chalybeats. But it is ſuppoſed that mad People are rendred worſe by Opiates; for they rave more after them.

For Catarrhs and tickling Coughs they are very proper: But when the Matter that lyes in the Lungs is thick, and difficultly expectorated, they are injurious. The Uſe of them is ſuſpected in an Aſthma, and in a Pleuriſy narcotick Opiates muſt be avoided. In a Conſumption they are very proper, if the Diſeaſe proceed from a Flux of acrid Humours, or from ſpitting of Blood. But when there is an Ulcer in the Lungs, they ſtop Expectoration, and therefore are conſequently hurtful; for the ſick is often ſuffocated thereby, and therefore in ſuch a Caſe Reſpect muſt be always had to eaſe Expectoration; for as long as it proceeds well, the Life of the ſick is lengthened.

For Diſeaſes of the lower Belly, Stomach, and Hypochonders, Opiates are of Uſe. They are proper for the *Cholera Morbus*. But if the vomiting is unſeaſonably ſtopt, great Miſchiefs ariſe; therefore the Evacuation of the acrid and corrupt Humours muſt be a while permitted. For a Cardialgia Opiates are proper, and for the Hicopps they are of excellent Uſe. For an *Appetitus Caninus* they are of good Uſe. They are alſo proper for the Cholick mixed with Purges. For the Iliac Paſſion, the Bloody Flux, and the Piles, they are alſo very proper; ſo are they for the Stone, for violent Pains in the Gout, for hyſteric Diſeaſes, and an immoderate Flux of the Courſes.

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and the like. Plaiſters applied to the Temples made of Opium, are good for Watchings, Pains of the Head, and Pains of the Teeth. *Horſtius* ſays, that he knew a violent bleeding, by reaſon an Artery was wounded, preſently and wonderfully ſtopt, when other things could do no good, by the Application of the Magiſtery of Opium to the wounded Artery. *Crollius* relates a deſperate Hemorrhage of the Noſe was cured by ſtopping the Noſtrils with two Pills made of ſixteen Grains of Laudanum.

A Perſon fell into a violent Hemorrhage by drawing of a Tooth, and was cured, when other Means would not do, by Opium.

Opium is alſo good for Ulcers in the Womb, when Pain is joined with them, for a Pain in the Teeth, a Pill of Laudanum put into the hollow Tooth, eaſes the Pain.

Take of the beſt Laudanum Opiatum one Scruple, of Oyl of Camphor and Cloves, each five Drops; mingle them, and with Cotton apply it to the hollow Tooth.

The Heads and Seeds of white Poppies, whereof Diacodium, alſo Decoctions, Emulſions, and other hypnotic Preparations are made, are far leſs indued with a narcotic Sulphur, than the concrete Juice of Opium, and what thereof is in theſe, is far more pure and harmleſs; wherefore we do oftener, and more ſecurely give Remedies made up of theſe; for it is not good to aſcend to Laudanum, unleſs, when through the Vehemence of Symptoms, Diacodiats will not do.

The Ancients, who thought that Opium hurt by its exceſſive Coldneſs, uſed altogether hot Medicines to correct it, ſuch as Pepper, Pyrethrum, Saffron, Caſtor, Euphorbium, and the like. But they were induced to correct Opium in that manner, by a falſe Hypotheſis, and they made no good Preparation of their Medicines, to ſpeak only of *Philonium Romanum*, heretofore,

tofore a ſufficiently frequent Medicine: Experience has taught, that by the Mixture of ſo many hot Ingredients, it can hardly be ſwallowed, but it will burn the Throat, and cauſe an Heat therein; and being mixed in Gliſters, but even to half a Dram, it has, in ſome, cauſed a great Heat in the lower Belly and ſtrait Gut.

Opiates, tho they are divine Medicines, and tho they do a great deal of good in many Diſeaſes, yet an imprudent and unſeaſonable Uſe of them has been the Death of ſome. It is commonly known that the principal Functions of the Soul are much hurt by Narcotics; ſome have been made dull and ſtupid, and others mad, and the reaſon why Opium is devoured by the Turks in great Quantity, without any Harm, or however without any Danger of Life, is, becauſe its Particles, by frequent Uſe, become agreeable and familiar; as we obſerve concerning the Smoak of Tabaco taken in a Pipe; for whereas at the firſt it uſes to cauſe Giddineſs, and often vomiting or purging, cold Sweats, trembling, and often fainting; yet after a while, we take it without Diſturbance, yea, with great Delight; and the reaſon why a large Doſe of Opium adds Courage, and notable Boldneſs to them, ſo that they can enter upon a Fight without Fear, I ſay, the reaſon ſeems to be, becauſe this Medicine, by ſomewhat ſtupifying the Spirits, makes them amazed, ſo that they can undauntedly endure the Approaches of ſenſible things howſoever terrible they are.

When Narcotics are given with Purgers, the Quantity of the Purgers is to be increaſed, becauſe the narcotic Vertue blunts them, as if half a Dram of Pil. Coch. minor is enough otherwiſe, let two Scruples, or two and an half be given with a Narcotic, and let Narcotics be given with Purges, that have Digridium or Coloquintida in them, whereby Nature may be ſollicited to Expurgation: And if the Purge ſtop, let it be called out by an acrimo-

nious and provoking Glister. Observe this carefully, when you give Narcotics with Cathartics.

Let Narcotics be never taken on the Day before purging or bleeding, because they dull the Spirits, and hinder the Blood from flowing freely; and if they are taken by the Mouth, or injected by Glisters, they hinder the Operation of the Purge.

To conclude, note, that Narcotics do most Good, when Evacuations have went before. Note likewise, that it is best to begin with a small Dose, and to increase it as there is occasion.

Children do not bear Narcotics so well as the adult.

CHAP. XX.

Of Weights and Measures used in Physick.

DRY things are generally weighed. A Grain is the Foundation of Weight. A Scruple contains twenty Grains; a Dram three Scruples; an Ounce eight Drams. A Pound is twelve Ounces. Liquid things are measured.

The Quantity of Medicines in Magnitude is prescribed by Handfulls, Armfulls, or Pugils. A Handfull is that Quantity which may be held in the Hand, answerable to half an Ounce. A Pugil is either greater or less. The greater is as much as may be taken in all the five Fingers: The lesser as much as may be taken in three Fingers. The greater is in Weight a whole Dram, the lesser half a Dram.

In Number also the Quantity of Medicines is considered, and that either equally or unequally; for instance, three or four Lupins.

Roots, Barks, and Woods are weighed: Leaves are measured by Handfulls; if they are prescribed for Baths,

Baths, by Armfulls. The Doſes of Seeds are for the moſt part expreſſed; yet Barly and Rice are meaſured by the Pugil. Flowers are meaſured by the Pugil. Small Fruits are weighed, great are numbred. Aromatics, Gums, and Roſins are weighed. Precious Liquors and diſtilled Oyls are preſcribed by Drops.

The Notes of Weights uſed by Phyſicians.

Gr.	A Grain.
℈ ß.	Half a Scruple.
℈ *j.*	One Scruple.
℥ ß.	Half a Dram.
℥ *j.*	One Dram.
℥ *j.*	One Ounce.
℥ ß.	Half an Ounce.
℔ *j.*	One Pound.
℔ ß.	Half a Pound.
Mj.	A Handfull.
M ß.	Half a Handfull.
P.	A Pugil.
Quart.	Three Ounces.
Ana.	Equal.
Q. S.	A ſufficient Quantity.

The five greater opening Roots, Parſly, Fennel, Aſparagus, Parſly, Butchers Broom.

The five emollient Herbs, Marſh-mallows, Beets, Mallows, Mercury, Violets.

The five capillary Herbs, black Maiden-hair, white Maiden-hair, Ceterach, Harts-tongue, Polytrichum.

The four cordial Flowers, Borrage, Bugloſs, Roſes, Violets.

The four greater carminative Seeds, Caraways, Aniſe, Cummin, Fennel.

The four leſſer hot Seeds, Biſhops Weed, Amomum, Smallage, Daucus.

The four greater cold Seeds, Citruls, Cucumbers, Melons, Gourds.

The four leſſer cold Seeds, Succory, Endive, Lettice, Purſlain.

The Fragments of the five precious Stones, Granates, Hyacinth, Sapphyr, Sardus, Smaragd.

An Apozem or Decoction is a liquid Form of a Medicine, made of divers Ingredients, and ſweetened with Honey or Sugar, and prepared in ſufficient Quantity for four or five Doſes, to purge or alter: That is called an altering Apozem which hath a Vertue to alter the Body, and things contained in it, eſpecially the Humours, without that viſible Evacuation, which is uſually called purging.

In the Compoſition of it ſix things are diligently to be conſidered; firſt, The Matter out of which the Vertues are to be drawn; ſecondly, The Liquor into which it is to be conveyed; thirdly, The Decoction; fourthly, What things are to diſſolved in it; fifthly, The clarifying of it; ſixthly, The aromatizing it. In the Matter theſe three things are to be regarded, the Quantity, the Quality, and the Order of Preſcription. Concerning the Quality, the Ingredients are chiefly Roots, Barks, Woods, Leaves, Seeds, Fruits, Flowers, Spices. The Quantity or Doſe is as follows. Roots are not to exceed four Ounces, or ſix at the moſt. Barks one Ounce, or two Ounces at moſt, Woods in the ſame Quantity. Leaves not above eight large Handfulls. Seeds to one Ounce, or an Ounce and an half. Fruits are either the leſſer Sort, and they are preſcribed from one Ounce to two Ounces; or in Number, and that uſually by Pairs.

If they are large Fruits they are preſcribed only in Number, either even or odd: If they be of the greateſt Sort, as Apples, and the like, they are preſcribed by one, two, three, or the like; but if they are leſs, as Figs, by Pairs. Flowers from four Pugils to ſix.

Spices

Spices are beſt added in the ſeaſoning. Concerning the Order of the Preſcription, they are to be prepared by the Apothecary, as they are preſcribed by the Phyſician, *viz.* firſt Roots, then Barks and Woods, if any be added; ſecondly, Leaves; thirdly, Seeds; fourthly, Fruits; fifthly, Flowers, and with them the Spices laſt of all. The Quality of the Liquor is to be varyed, according to the Intention of the Phyſician; but generally Fountain-Water; the Quantity is ſeldom preſcribed any other way than by *Q. S.* and is ordered to be boyled to one Pint and an half for Apozems, I uſually intend it for four Doſes. You muſt not preſcribe above twenty Ounces; for they are apt to corrupt. The Quantity of things to be diſſolved differs according to the Nature of them. Sweetners are uſually diſſolved from four Ounces to ſix at moſt, ſo that every Doſe of the Apozem may have between an Ounce, and an Ounce and an half in every Doſe: But where Syrup and Sugar are mixed together, the Quantity of the Syrup is moſt commonly about three Ounces, and the Sugar preſcribed only with a *Q. S.* Juices and other ſtrong Liquors, as Vinegar, Aqua Vitæ, and the like, are preſcribed from one Ounce to two Ounces at the moſt. In the aromatizing, or ſpicing, two things are to be conſidered, the Quality and the Quantity of the Spices: As to the Quality, it is either Spice, yellow or red Sanders, Cinnamon, Ginger, or Saffron: As to the Quantity, one Dram, or a Dram and an half is ſufficient.

In a purging Apozem three things are to be conſidered, the Compoſition, the Uſe, and Profit In the Compoſition two things are to be regarded, firſt, The Ingredients; ſecondly, thoſe things that are to be diſſolved in it: The Ingredients are ſimple Purgers with their Correctives: In theſe, three things are to be regarded, the Quantity, Quality, and Order of Preſcription. In relation to the Quantity, note, that

thoſe purging Simples which are only boyled are theſe; Sena, Polypody, Carthamus, Turbith, Hermodactils, Agarick, Epithymum, Hellebore, Spurge, and the Seeds of Dwarf Elder. Thoſe which are to be infuſed or but very little boyled, are Rhubarb, Myrobolans, Tamarinds, and ſometimes Caſſia. As to the Quantity, it ought to be double to the Quantity they are given in Subſtance, if they are the ſtronger Sort; or treble, or quadruple, if they are of the milder Sort, more eſpecially, the three following are to be choſen, for the Fundamentals of almoſt every purging Apozem.

Take of the Leaves of oriental Sena, the Pith of the Seed of Carthamus, Polypody of the Oak new gathered, each two Ounces and an half; you may add, upon occaſion, half an Ounce of Gummy Turbith, or half an Ounce of Hermodactyls, or half an Ounce of Agaric trochiſcated, or half an Ounce of Rhubarb tyed up in a Rag, or ſix Drams of Epithymum, or two Drams of the Roots of black Hellebore, or an Ounce and an half of Tamarinds, or half an Ounce of the Bark of Citron, Myrobalans, or an Ounce of common Orris Roots.

Things to be diſſolved in the ſtrained Decoction are Syrups or Electuaries, *viz.* Syrups to four Ounces or ſix Ounces, Electuaries to two or three Drams, and ſo let an Apozem be made for four Doſes.

A Julep is a fluid Medicine compoſed of an appropriate Liquor, and Syrup, or Sugar mixed together without boyling, for four or five Doſes, either to prepare, or alter the Humours, or to ſtrengthen the Body. In the compoſition two things are to be minded, firſt a proper Liquor, of which it is to be made; Secondly, what things are to be diſſolved in it. In the Liquor two things are to be regarded, the quality and quantity: As to the quality, either there is preſcribed a ſingle diſtilled Water, reſpecting the Diſeaſe, and the

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diſeaſed Part, or elſe a diſtilled Water, and a Juice together, or elſe a Decoction: The quantity ought to be about eight Ounces.

Things to be diſſolved are conſidered with reſpect to their quantity or quality: As to the quality, either Sugar, ſome proper Syrup, or Cordial Confection, Pearl, Ivory, or Coral is mixed with it: As to the quantity of Sweetneſs, one Ounce, or an Ounce and an half. Confections and Powders are preſcribed from one Scruple to two.

A Potion is a liquid form of Medicine, made of things proper for Purging, or Cordials; but now a days by a Potion is meant a Purging Potion. The difference of Purging Potions are taken from the difference of Humours they Purge; hence ſome are Cholagogues, ſome Phlegmagogues, others Hydragogues, others Melanagogues; and others, compoſed of all theſe Properties, are called Panchymagogues. In general three things are to be conſidered in them; in compoſition two things are to be regarded, a proper Liquor whereof it is made, and ſuch things as are to be diſſolved in it. The Liquor that is fit to diſſolve your Medicine for a Purging Potion is to be conſidered, as to its quality and quantity: In reſpect of the quality, there is preſcribed either a Decoction or Infuſion, or ſome other Liquor ſerving the intention of the Phyſician. A Decoction of Sena is generally uſed, or a Decoction of other Cathartics may be made, according to the diverſity of the Humours, ſufficient only for one Doſe; and if you diſſolve nothing in it, the quantity muſt be the larger. Things to be diſſolved are conſidered either in quantity or quality. Manna and Caſſia are uſed to Purge Choler gently; Rhubarb for Fluxes; Syrups and Electuaries are alſo diſſolved in it, Syrup of Roſes ſolutive, or Diaprunum, or the like. As to the quantity, half an Ounce, or an Ounce of Syrup is uſually added, a Dram or two Drams of an Electu-

Electuary, an Ounce of Manna. A Purging Potion is very uſeful for thoſe that cannot take Pills or Bolus's.

An Emulſion is an altering Medicine uſed to aſſwage Pain. In it are to be conſidered the Matter, the Liquor, and the things to be diſſolved in it. The Matter in relation to its quality, are ſweet Almonds blanched, the four greater cold Seeds, or white Poppy Seeds, or the like; an Ounce, or an Ounce and an half, or two Ounces of the Matter are generally preſcribed. The Liquor is either fair Water, or a Decoction of Barly, or the like. As to the quantity, a Pint, or thereabout, is preſcribed; for it will not keep long. An Ounce, or an Ounce and an half of Syrup of Violets, or Maiden-hair, is uſually mixed with it; ſometimes to make it more pleaſant, a little Roſe-water is added to it. Three or four Ounces of it is a Doſe.

A Bolus is a form of Medicine, almoſt of the conſiſtence of Honey, or ſomewhat thicker. As to the quality of the Matter in general, it is compoſed of Purgers, both ſimple and compound. As to the quantity in general, a Bolus ought not to exceed ſix Drams; Caſſia, or the Pulp of Tamarinds is generally the Matter of it.

A Linctus is a Medicine of the thickneſs of Honey, compounded of pectoral Simples, and is uſed for Diſeaſes of the Lungs and Breaſt: it is uſually made of Syrups, Oyl, and Sugar. As take of the Syrups of Jujubes, and Maiden-hair, each one Ounce and an half, of Oyl of ſweet Almonds freſh drawn one Ounce, of Sugarcandy two Drams, mix them, by beating them well in a Glaſs Mortar till they are White.

A Linctus is commonly preſcribed to be lickt with a Liquoriſh Stick. Powders are alſo ſometimes uſed in a Linctus; as to their quantity, they are preſcribed to an Ounce with four times the quantity of the Liquor.

Vomits are ſaid to be Medicines which evacuate Choler and Flegm, and ſometimes Poyſons from the Stomach and neighbouring Parts. Antimonial Medicines eject Choler, Mercurial Flegm; Aſarabacca, and all things made of it evacuate Choler and Flegm.

Some Forms of Vomits.

Take of Oxymel of Squills one Ounce and an half, Wine of Squills two Ounces, mingle them, make a Vomit.

Take of the freſh Leaves of Aſarabacca, number ſix or eight, beat them, and pour upon them three Ounces of White Wine, preſs out the Liquor, and let it be taken with Regimen.

Take of Salt of Vitriol one Scruple, two Scruples, or one Dram, let it be taken in a draught of Poſſet Drink.

Take of the infuſion of Crocus Metallorum half an Ounce, one Ounce, or one Ounce and an half; take it in a Draught of Poſſet Drink with Regimen.

Take of Sulphur of Antimony grains ſix or eight, Cream of Tartar one Scruple, mingle them, give it in the Pap of a roaſted Apple.

Take of Mercurius Vitæ *grains three or ſix, take it in the Pap of a roaſted Apple.*

Chymical Vomits made of Vitriol, Antimony, and Mercury are moſt eſteemed.

Salt of Vitriol is much valued, becauſe it ſeldom cauſes any diſturbance beyond the Stomach, whereas Stybiats ſometimes occaſion Convulſions of the Bowels, and Faintings, yet it works dully, and ſometimes not at all; wherefore upon taking of Salt of Vitriol, great quantities of Poſſet-drink muſt be taken, and it muſt be forced up with a Feather. Pills are a ſolid form of Medicine, and round, made of Powders, and ſometimes Gums, Juices, tempered with ſome Clammy Liquor, chiefly prepared to Purge withall. The moſt

uſual

uſual are, the Stomach Pill, *Rudius*'s Pill, Agaric, Cochiæ, Aloephangin. fœtid. The Matter is generally Aloes, as the Baſis; the Liquor is a Mucilage, or ſome proper Syrup. The Doſe of ſtrong Pills is a Scruple; of moderate, two Scruples, or a Dram; of the gentle one or two Drams.

The Liquor of a Purging Gliſter is the common Decoction. The Liquor of an altering Gliſter is made of mollifying things, heating or cooling, according to the intention. As to the quantity of the Liquor, it varies according to the Age of the Party very much; for three Ounces will ſerve for a Child of Four or Five Months old. A Pint is commonly preſcribed for the Adult. Great Men will receive a Pint and an half; but it is to be noted, that for Women with Child, and thoſe that have a Dropſie, or are troubled with Wind; and for Old Folks, three quarters of a Pint will be ſufficient, when we would have the Glyſter long kept in the Body: The things to be diſſolved are either Alterers or Purgers; the Alterers which are generally diſſolved, are Honey, Sugar, and Oyl. Salt is ſometimes added, when we deſign to make the Glyſter more provocative. The Purgers are Electuaries, either Lenifying or Purging, according to the variety of the Humour to be Purged, and the Conſtitution of the Body.

A Medicinal Wine, is Wine impregnated with the Vertues of divers Simples infuſed in it to alter the Humours, or Purge: In the compoſition three things are to be obſerved, the Wine, the Things to be infuſed in it, and the Things that are ſometimes diſſolved in it. A Purging Medicinal Wine is impregnated with the Vertues of divers Purging Simples. As to the quality of the Wine, it is either new and uncleanſed, or elſe Wine cleanſed from the Lees; in relation to the quantity, that muſt be limited with reſpect to the Uſe and Doſe. But I uſually define the quantity of

Wine,

Wine, and Things to be infuſed in it thus: A Purging Wine that is to be preſcribed is to be uſed twelve days, either together, or every other day, wherein you muſt be ſure to have twelve ſeveral Doſes of the Purgers with their Correctors, and if it be needful, fit Alterers; then muſt you compute the quantity of them all. For inſtance, ſuppoſe them eight Ounces: Now if you would have the Doſe of the Wine to be about an Ounce and an half, or two Ounces, preſcribe it to three times their weight, and ſo for other quantities as you pleaſe; by the ſame way, you may proceed as you ſee fit. But if the Wine be purely Purging, made of the gentler ſort of Cathartics, it is to be taken four, five, or ſix times, at due diſtances. The things to be infuſed, in reſpect of their quality, are either Purges only with their Correctors, or elſe with them are alſo infuſed divers Alterers dryed, as Woods, Roots, Barks, Leaves, Seeds, Flowers, Spices.

In relation to the quantity, the number of Doſes for which the Wine is Prepared, ſhall direct you. For inſtance, a Wine of Sena is deſired for twenty Doſes. Now the Doſe of Sena in infuſion is half an Ounce, or ſix Drams, therefore ten Ounces, or fifteen of it, is to be preſcribed. If the Wine be prepared of many Purgers, both gentle and ſtrong, and alſo Alterers joined with them; this proportion is for the moſt part to be generally obſerved. Of the gentle ſort let there be one part, of the ſtronger ſort a quarter ſo much; of Correctors a quarter ſo much as of Purgers; Alterers ſhould be half ſo much as the Purgers. Things that are to be diſſolved in reſpect of their quality, are either Sugar, or Spices. As to their quantity, for every Pint of Purging Wine, you may add three or four Ounces of Sugar, and two Drams of Cinnamon.

Medicinal Wines are uſually preſcribed for long, and cold Diſeaſes, eſpecially in the Winter-time.

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Medicinal altering Wines are uſed with reſpect to certain parts, as Sage Wine for cold Affections of the Brain, Hyſſop and Elecampane Wine for the Breaſt, Wormwood Wine for the Stomach.

Medicinal Wines are alſo preſcribed againſt the Stone, to provoke Urine and the Courſes. The compoſition is the ſame with that of the Purging Wine.

A Gargariſm is a liquid Medicine preſcribed for Diſeaſes of the Mouth, Gums and Throat. It is compounded of Waters, and proper things to be diſſolved in it. As to the quantity, a Pint, or a Pint and an half of Water is preſcribed. Of the things to be diſſolved in it, namely Syrups, 3 or 4 Ounces; of Honey 1 Ounce and an half, or 2 Ounces; of Vinegar 2 or 3 Ounces.

A Peſſary is a Medicine to be put up a Womans Privities in many Diſeaſes of the Womb. It is compoſed of an Ounce and an half, or two Ounces of ſome looſening Opiat. Two are always preſcribed, that when one is taken out, the other ſhould be put in: It is corporated with ſome Juice.

Note, that ſome Powders may be added to the Opiat, either ſharp hyſterical opening Powders to a Dram and an half, or two Drams, or elſe Powders of Purgers ſimple, or compound, to two Drams.

A Suppoſitory is a topical Medicine uſed to the Fundament, or *Anus*, three or four Inches in length, ſlender and round; it is either ſimple or compound. The ſimple is made either of the ſtalk or root of Beets, Colewort, or Marſhmallows; the outward Peel being taken off, to which is added ſometimes Salt, (to augment the provocative Vertue) rub'd on the outſide, ſmoothen'd over with Oyl; alſo the ſtalk of a Leek anointed with Butter; or white Soap ſharpened like a Suppoſitory; alſo Honey alone boiled to a hard conſiſtence, for ſo it becomes more ſharp.

The Compound is made of Honey as the Baſis, boiled till it will not ſtick to the Fingers, then adding Powders

ders to it near to this proportion: As to one Ounce you may add one Dram, or four Scruples of Powder at moſt, according as the Powder is lighter in weight, or ſtronger in operation; which quantity will ſerve for two or three Suppoſitories.

A Cataplaſm is a ſoft Topick; it is compounded variouſly, either, which is moſt uſual of the Mucilage of divers parts of Plants, to which are after added, either Oyls alone, or with Powders. Let there be of Mucilage ten Ounces, or a Pound; of Powders, one, two, or three Ounces; Oyl or things equivalent, three or four Ounces; or elſe you may expreſs only the quantity of the equivalent things, and ſet down of Oyl *Q. S.* ſo that the whole Cataplaſm do not exceed one Pound and an half; it may be much leſs, according to the bigneſs of the part, and uſe. As to the Mucilage, it is made in reſpect of the quality of boiled Roots, as Marſhmallows, Lillies, or the like. The Powders in relation to their quality are Flower of Barly, Beans, Linſeed, Fenugreek Seed; or to diſcuſs, Orris, Cumin, Camomile Flowers, and the like; or ſometimes Fruits, ripe, or unripe, as Apples, Prunes, Quinces, and the like, roaſted under the Embers, or boiled in a fit Liquor, and bruiſed, adding fit Powders in the quantity aforeſaid; as in the Flux of the Belly, and Dyſentery, it is made of the Pulp of Quinces and aſtringent Powders; or ſometimes in Fluxes of the Belly, Vomiting, and to ſtrengthen the Stomach, a ſlice of Bread ſteeped in Wine, and toaſted hot, is preſcribed, being ſprinkled with one or two Ounces of an aſtringent ſtrengthning Powder, to be applied to the Stomach.

A Cataplaſm for Pain is made of Crums of White Bread ſteeped in half a Pint of Milk; to which is added two Yolks of Eggs, half an Ounce of Saffron, and q. s. of Oyl fit for the purpoſe. Cataplaſms are applied chiefly to eaſe Pain, to ſoften hard Swellings, to ripen

ripen Tumours, and to diſſolve the Cauſe of Inflammations. They are uſually preſcribed of aſtringent Things, to ſtop Fluxes, and are profitably made to provoke Urine; of Pellitory of the Wall, and Oyl of Scorpions, applied to the bottom of the Belly; for they relax, mollify, and empty powerfully.

A Pultiſs differs from a Cataplaſm in nothing elſe, ſaving that that is prepared of the Mucilage of Things boiled to Pap, and this is uſually made of the flowery part of Things boiled to the conſiſtence of a Pultiſs. It is either compounded of the Flower of Pulſe, four Ounces being boiled in a convenient Liquor, to which afterwards are added Oyls, or three or four Ounces of Greaſe, or ſome other thing equivalent to Oyl, if the caſe ſo requires, or of the Crums of White Bread to eaſe Pain, and ripen; or of a convenient Mucilage and Powders, and Oyls. But this is rather a Cataplaſm.

CHAP. XXI.

Of the Office of a Phyſician.

THere is no part of a Phyſician's Office more illuſtrious than Conſultation; becauſe by it alone unlearned Phyſicians are diſtinguiſhed from the learned; and there is nothing that brings greater advantage to the Sick; but Care muſt be taken that Differences do not ariſe out of Hatred, or private Intereſt. We may indeed ſometimes oppoſe other Mens Opinions, if they ſeem not good, but reſpect muſt be always had to the Laws of Reaſon and Experience, and we muſt ſubmit always to the Judgment of the moſt experienced, and to Plurality. Theſe Conſultations muſt be held apart from the Patients, to the end every Man may more freely diſcover his Fears or Hopes; for Fear is not eaſily removed out of the Patient's Head, when he

he is once poſſeſſed with it. Beſides, if any one of the Phyſicians have a Spark of Vain-glory in him, he will be apt to magnifie himſelf before the Patient.

A faithful and true Account of the Diſeaſes, their Cauſes and Symptoms muſt be required of the Patient; for *Celſus* ſays, that many die thro' their own Fault, eſpecially Women, when their Modeſty will not allow them to reveal the ſecret Diſeaſes of their Bodies.

We muſt not utterly deny a Patient all Remedies, how deſperate ſoever his Caſe is; for the Strength of Nature is admirable, and ſhe often rallies againſt the triumphant Enemy, and ſometimes in a freſh Combate becomes victorious. Now, ſince it is ſo, and ſince oftentimes ſuch unexpected Events have convinced us, that as long as there is Life there may be Hopes, we ought to be doing ſomething: *Hippocrates* himſelf acknowledges that Predictions of Life and Death are not always certain.

Let the Phyſician be doubtful in his Prognoſtic, unleſs there be moſt certain, and infallible Signs of Death; Let him be moderate in his Promiſes, yet let him give always Hopes rather of Health, than foretel certain Death; for when the Patient is given over by the Phyſician, if he recover afterwards (as he often does, which occaſioned the Proverb, *viz.* that it is better to be condemned twice by the Phyſician, than once by the Judge) the Phyſician incurs Infamy.

In ſome Diſeaſes, great regard muſt be had to Mens way of living, otherwiſe they will be hardly cured; and ſo many good and admirable Cures have been performed.

Let neither the Phyſician, nor the Apothecary declare what their Medicines are, either to the Patient or to the By-ſtanders; let them only ſignifie, that they intend to give a Purge, a Vomit, or a Gliſter, and conceal what theſe are made of, both becauſe otherwiſe they may be improperly taken, without the

Advice of a Phyſician, or becauſe when things are known, they are contemned.

Hippocrates bids us obſerve all the Patient's Errors, whether about Meat or Drink, or about Medicines, or external things; for if through their own Faults they grow worſe, the Blame is laid upon the Phyſician.

We muſt not uſe Medicines, but upon urgent Neceſſity; for ſometimes we muſt reſt a while, and do nothing but order a good Diet.

It is not unbecoming a Phyſician, who is skill'd in the manual Operation, to breath a Vein, when there is no Surgeon to do it, or to ſet a Limb that is broken or out of joint; for a Surgeon's Work is one of the three Parts of Phyſick; nor is it diſgraceful to make up Medicines: And indeed it were well if Phyſicians applyed themſelves more to Pharmacy than they do.

Let the Phyſician never preſcribe two Medicines at once, and leave the Patient to his Choice, becauſe then he is at a Loſs, and can truſt neither of them, but blames his Phyſician for Inconſtancy.

A Phyſician ought not always to contemn the Medicines of the common People. Let no Man, ſays *Hippocrates*, be aſhamed, if he be never ſo learned, to learn ſomething that conduces to the Perfection of his Art, tho from an old Woman.

A Phyſician muſt not mix thoſe things which deſtroy one another by a manifeſt Contrariety; for example, vitriolated things muſt not be mixed with nitrous ones, nor aluminous things with Alcalies, and the like.

Some counterfeit Diſeaſes, whoſe Deceit it belongs to a prudent Phyſician to detect; now the Diſeaſes that are counterfeited, are uſually Swooning, Apoplexy, Fits of the Mother. Some tye their Arms ſo ſtrait, that the Pulſe can ſcarce, if at all be felt; when they are called on aloud, they do not anſwer; if they

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be prickt a little, or their Ears pull'd, or their Fingers bent, they bear it patiently. The Cheat is discovered by asking, whether any Want of Food has preceded, Loss of Blood, a Looseness, Vomiting, or immoderate Sweating, or any Disease; or whether he hath been in a hot Place, or where Coals have been kindled in a close Room, or whether he hath been put in some great Passion. But if the extream Parts are cold, and if a cold Sweat burst out, especially about the Head, Face, and Neck; if the Pulse cannot be felt, or are creeping; if the Breathing be little and cold, if the Colour of the Face be gone, and if he void his Excrements, these signifie that the Diseases are not feigned: But if there be no such Signs, and if the Cheater shuts his Eyes, and looks as if he were in a Swoon, the Physician must mention some strong Medicines, he must order burning, bending of the Fingers, and pricking of the Body with Needles; for by this means the Cheat may be discovered. Some raise Blisters, Swellings, and Ulcers, by washing the Skin with the Juice of Spurge, or with a Decoction of *Spanish* Flies, or Wasps, in Water, or by applying scorching Fennel, or Turbith, or Powder of Rue: It is usual with Beggars to move Compassion, but the Cheat may be easily discovered, by applying Populeon Ointment, or the like; because Blisters and Swellings occasioned by such Applications may be easily cured thereby. Some counterfeit Madness; but you may discover them by their Habit, and by the Absence of the Signs of Madness, or Melancholy. *Ulisses*'s feigned Madness was discovered by throwing his Son before the Plow; for he lifted the Plow over him. Some, with the Steem of Brimstone, or with some such thing, discolour the Face; Saffron or Rhubarb does the same. Those that counterfeit Pains may be easily discovered, for they bear it better, and do not change Postures, as those do that are in violent Pain. Besides, they that are very

ry ill of a Diſeaſe are willing to admit of any Remedy voluntarily, ſend for Phyſicians, and do whatever they preſcribe. But if they be but a little ſick, or not at all, they refuſe ſuch Remedies. Sometimes it happens that a wounded Man, either out of Hatred to him that wounded him, or to get ſome Money out of him, feigns that ſome Limb is hurt: In this Caſe you muſt touch that Hand or Limb unawares.

When a Phyſician is firſt called to a Patient, after he has put the Patient in Hopes of Recovery, let him order ſomething preſently, that he may not be thought to practiſe Phyſick by Books, eſpecially when he is called after other Phyſicians; for then all expect ſomething more than others have done before; therefore when you are informed what they have done, begin ſome other Method, yet ſuch as you think is more effectual, leſt if you ſhould repeat the ſame things, they ſhould think you were called to no purpoſe. If the Diſeaſe be ſuch as may be cured by Diet alone, yet you muſt preſcribe ſome Phyſick, which may do no Hurt, or ſomething like Diet, which may do Good, leſt they ſhould ſay you were ignorant, and affirm that Nature cured the Diſeaſe. This muſt be eſpecially done when the Patient never thinks himſelf ſafe or well, but when he is taking Phyſick; and if you do not trifle with him in this manner, he will find others that will tamper with him and ſpoil him.

A Phyſician ſhould never viſit the ſick, unleſs he be ſent for, and his Viſits ought not to be too frequent, when he is entertained.

There are ſome principal things, concerning which Patients ſhould be interrogated, firſt, what it is that ails him, and how his Head and Stomach, and other principal Parts do; how many Days he has been ill; what made him ill; what Diet he kept; whether he be looſe or coſtive; whether he uſed naturally to breed bad Humours; whether any natural Evacuation be ſtopt;

ſtopt; whether he be uſed to labour, or a ſedentary Life.

Patients muſt not always be ſeverely denied what Nature earneſtly craves for, for we ſee that ſeveral do not recover till their Appetites are gratified.

You muſt vary the Courſe of Diet and Medicines, according to the Conſtitutions, Climates, Situation of Countries.

There are many things in this Art, wherein for Urgency's Sake, it is a piece of Art to depart from Art; for tho there be many good Precepts and Rules, yet none are perpetual, and he that reckons any for perpetual and inviolable, may be a Methodiſt, but not at all rational; for a rational Phyſician proceeds not ſo much by Book as by Experience; for in Caſes there is a wonderful Variety.

When the Phyſician judges ſome generous Remedy requiſite, and the Patient or By-ſtanders are againſt it, he ought to acquaint them with the preſent Danger, the Miſchief of deferring it, and the Damage that will follow; thus they that will not yield to Perſwaſions, will ſometimes obey for Fear of future Evil.

It is much better to be an empirical Phyſician, that is, one who practiſes according to Experience, than a theorical one, who practiſes according to his own Reaſonings and Figments; for Experience has long ſince informed all accurate Obſervers of things, which happen in our Art, that Empiricks are more ſucceſful in their Practice than Theoriſts, and ſuch as are Phyſicians from Books, or their own Speculations: Theſe are ſo much more miſerable in their Folly, becauſe they make others miſerable with themſelves; but the World will be bubled with cramp Words, and great Brags.

It is unbecoming a Phyſician to harangue to the By-ſtanders; for it gives the Patient a Suſpicion that he

would cure indeed, but that he is not able, and therefore he would ſupply in Talk what he cannot perform by his Skill.

It is the Part of a Phyſician, not only to uſe Medicines, and to order the Meat and Drink, but alſo to take care of all things that muſt be done or ſaid before the Patient, and of the Chamber, Houſe and Bed, and of all external things, and to diſpoſe of them all, ſo as they may be moſt for the Benefit of the Patient.

When the Nature of the Diſeaſe is obſcure, yet as for the Cure, an Indication is left us, to be taken from the *Juvantia & Ladentia*, by means whereof, trying the way by degrees, we may conduct the Patient, provided we make not too much Haſte, than which nothing is more deſtructive. I am not aſhamed, ſays *Sydenham*, to confeſs, that when I was not ſatisfied what I ought to do, I provided beſt for my Patient and my ſelf by doing nothing; for while I waited for an Opportunity, the Diſeaſe either went off of it ſelf, or put on ſuch a Type, as I knew well enough how to manage. And indeed, more ſhould be left to Nature than is now the Cuſtom to do; for he is much miſtaken, who thinks Nature always needs the Help of Art; for if it were ſo, ſhe has not taken that Care of Human Kind, which the Conſervation of the Species requires, ſeeing there has been no Proportion between the Frequency of Diſeaſes that invade Man, and their Faculties which Men have to drive them away, even in theſe Ages, when Phyſick flouriſhed moſt, and when moſt Men practiſed it.

It is found by Experience, that every ſeven or nine Years a Man undergoes ſome great Alteration; theſe are called Climacteric, becauſe they are Steps or Ladders, whereby we climb up to old Age: In theſe Years therefore no great Medicines muſt be uſed, and becauſe then Nature uſes to do ſome great thing, the Phyſician muſt be quiet.

Many

Many Phyſicians avoid all Days of Oppoſitions and Conjunctions of the Moon, unneceſſarily; for all the Phyſician has to do, is to obſerve the Alterations of the Air.

CHAP. XXII.

Of Animals that are of Medicinal Uſe.

THE Lungs of a Lamb, as well as thoſe of a Fox, are commended for Conſumptions, and Diſeaſes of the Lungs. The coagulated Milk of a Sheep or Goat is excellent for diſſolving Womens coagulated Milk.

The Horns and Hoof of an Elk are in Uſe, and both are accounted Specifics for an Epilepſie, Convulſions, Tremblings of the Limbs, Giddineſs, Palpitation of the Heart, and hyſteric Fits.

The Tooth of a Boar is reckoned a Specific in Pleuriſies and Quinſies; half a Dram or a Dram of it prepared, being given in a Decoction of the Flowers of red Poppies, or in a Decoction of Carduus Benedictus. Some give a Dram of the Raſpings of it, mixed with Oyl of Almonds and Sugarcandy: But the Raſpings of it mixed with a Decoction is beſt; for it yields a kind of a Gelly. The Stones are a Specific for Barrenneſs in Women, and an Eſſence is prepared of them, which is counted good for Impotents, and it is uſed alſo to promote and ſtimulate Venery. The Dung is reckoned an excellent Specific to ſtop Blood. The Urine is good for the Stone in the Kidneys and Bladder.

Of the Blood of an Aſs is prepared an Eſſence, which is reckoned good for the Falling-ſickneſs. The Filth of an Aſſes Ear promotes Sleep, being applied to the Temples, and is excellent in malignant Fevers,

but you muſt not anoint the Temples with it too often, leſt it make the Patient ſleep too much. Aſſes Milk nouriſhes much, looſens the Belly, and provokes Urine, and is much commended for a Conſumption, the Stone in the Bladder, and in the Kidneys; and is better in theſe Caſes than any other ſort of Milk whatever, three Quarters of a Pint of it being drank five or ſix Mornings, ſweetned with an Ounce of Sugarcandy, and the Patient muſt faſt three Hours after; he muſt alſo take the ſame Quantity three Hours before Supper: But in this Courſe he muſt abſtain from all acid Meats. Aſſes Milk is alſo good for the Gout.

Aſſes Dung gathered in *May*, is good for bleeding at the Noſe, or for Blood flowing from any other Part, a Dram being taken at a time. The Fume of the Dung is alſo good for bleeding at the Noſe, and for too great a Flux of the Courſes. Or,

Take of Plantain Water one Ounce, of Syrup of Myrtles, and of the Juice of Aſſes Dung, each half a Dram; mix them: This Potion taken in the Morning, and continued for ſome Days, is an approved Remedy for all Fluxes of the Womb, whether white or red, Univerſals going before.

The Reins of an Aſs powdered, and mixed with Honey, and drank in Beer, are an excellent Remedy for the Strangury. The hard Fleſh growing about the Knees of an Aſs is reckoned as a great Secret for the making Hair to grow.

The Horns of a Bull raſped is reckoned good for Impotents, eſpecially if it be raſped off in the Time of Coition; ſo is alſo the Brain of a Sparrow killed in Coition. Bull's Gaul is the moſt acrid and volatile of all the Gauls of Animals, and is reckoned very proper to take off Spots or Clouds from the Eye; the Tincture of it is reckoned an excellent Coſmetic, and the Gaul thickened is of great Uſe in Gliſters to provoke the Belly, a Dram being mixed with a Gliſter. A Plaſter

or

or Oyntment made of Aloes, Cow's Gaul, Myrrh, and Oyl of Coloquintida, and applied to the Navel, is much commended to expel Worms in grown People, and in Children. The Gaul of all Sorts of Animals is much commended for Diſeaſes of the Ears, to quiet the Noiſe, to remove Deafneſs and Dullneſs of hearing, being put into the Ear with Cotton. The Spleen of a Cow is much commended for Diſeaſes of the Spleen, *viz.* the Hardneſs, Inflation, Pain, and Swelling of it. It is alſo good for Obſtructions of the Courſes, and for the Cachexy of Virgins ariſing thence, for which it is much commended.

Cow's Marrow is frequently uſed for Diſeaſes of the Nerves; Cow's Dung is frequently uſed for Burns, in the manner of a Cataplaſm, and for Inflammations, and being applied to the Belly, it is an excellent Remedy for the Cholick, and to expel Wind. It is alſo applied to the Belly in Dropſies, to leſſen the Swelling, and to diſcuſs the Water. It is alſo uſed for flegmatick Swellings of the Parts. It ſtops Inflammations, and prevents Gangrens. The Water of the Dung, called the Water of all the Flowers, is an excellent Coſmetic, and takes off Spots from the Face. It is alſo much commended for provoking Urine, and expelling Gravel. Some ordinary People preſs out the Juice of the Dung, and drink it for the Cholick and Pleuriſie, and it is counted a preſent Remedy.

There is often found in the Stomach of a Cow or Bull, a Stone, which is ſometimes pretty large, and ſometimes a Stone in the Gaul-bladder, the Powder whereof, eſpecially of that Stone in the Gaul-Bladder, is counted an excellent Remedy for the Jaundice, and to expel Gravel; it alſo expels Poiſons by Sweat, and drives away the Fits of the Falling-ſickneſs. The Powder of the Stone is alſo an excellent Errhine, but it is beſt uſed by being mixed with the Juice of Beets, and applied to the Noſtrils, for it preſently cauſes ſneezing.

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The Milk of a Cow, as all other Milk does, consists of three Substances, Whey, Butter, and Cheese; it is an excellent Nourishment, and partakes much of the Nature of the Herb the Beasts feed on; and so if they feed on Water-cress, Brook-lime, Scurvy-grass, Money-wort, and the like, the Milk will be good for the Scurvy; and if they eat Ground-Ivy, and the like, the Milk will be proper for a Consumption, and Ulcers in the inner Parts.

In the Use of Milk, you must observe to drink it warm from the Cow, for it is soon altered by the Air, and turns sowre, and is very apt to contract Contagion, in a pestilential Time, and turns of a Sky Colour or livid.

Milk in general is proper to nourish the Parts; therefore it is very proper for such as have a hectic Fever, or the like. It is also good to correct the Acrimony of the Humours, and is also an excellent Remedy for the Scurvy. It is also very proper for Diseases of the Urinary Passages, namely, bloody Urine, Heat of Urine, and the Strangury. It is also good for the Bloody Flux, especially if Steel be often quenched in it. In this Case it is to be taken by the Mouth, and to be injected in Form of a Glister. But in the Use of it, acid things must be avoided, and to hinder its Coagulation, it is convenient to mix a little Sugar with it; for Sugar powerfully hinders the Coagulation, and if a little of it be mixed with it, Butter or Cheese can never be made.

But Milk is naught for such as have continual or intermitting Fevers. It is also naught for those that are troubled with Head-aches, Giddiness, the Falling-sickness, and the like: It is naught for Nauseousness, Vomiting, a Looseness, and the *Cholera Morbus*. It must not be used in Swellings of the Liver and Spleen, or in Obstructions of the Mesentery.

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Outwardly uſed, it is an excellent Anodyne. It eaſes Pain. Flowers of Elder boyled with Milk is reckoned an excellent Medicine to take off Inflammations, and cures an Eriſypelas.

Whey moderately looſens the Belly, cools and aſſwages the Effervescence of the Blood, and is therefore proper in malignant and burning Fevers, either taken by it ſelf, or mixed with the Juice of Citron. And tho Milk be injurious to hypochondriac People, and to thoſe whoſe Viſcera are not firm, yet Whey is very proper for them, for it qualifies the Acid, and opens Obſtructions of the Bowels. It provokes Urine, and is conveniently uſed in Summer Mornings to attemperate the Acrimony of the Blood and Diuretics; and things that purge and open may be mixed with it.

A Decoction of Fumitory being mixed with it, or Fumitory boyled with it, purifies the Blood, cures the Itch, a Heat of Urine, and ſpitting of Blood.

But Whey is not proper for old Men.

The Pizle of a Bull reduced to Powder, and a Dram of it being taken at a time, is good for a Diſentery, and a Pleuriſie; and this is one of *Helmont*'s Antipleuretic Secrets.

A Toad is an Animal well known, upon the Account of the Antipathy that is betwixt it and the Spider, againſt which it defends its ſelf, by the Uſe of Plantain. The Poyſon of Toads is removed by River Crabs, Humane Spittle, Harts-horn, ſealed Earth, and Smaragd: But Toads are of good Uſe internally, and externally. Thoſe that are taken in *July* are beſt. As to their internal Uſe, they are dryed, powdered, and taken inwardly to provoke Urine in a Dropſie.

Take Toads dryed in the Shade, cut off the Heads, and take out the Guts, make of the reſt a fine Powder; the Doſe is ten or fifteen Grains, with ſo much Sugar. It may be taken three or four times: But three or four Days muſt be betwixt each Doſe; for it is a powerful Re-

Remedy. This has had wonderful Succeſs. Some take live Toads, and kill them in Spirit of Wine, or Malago Sack; afterwards they take them out and diſtill them in a Retort: But the Spirit of Wine it ſelf, or the Wine wherein they are killed, is an excellent and approved Alexipharmic, taken inwardly.

Externally Toads are of excellent Uſe in the Plague, for Preſervation and Cure. The whole Toad may be worn for an Amulet in the Plague, or they may be applied to the peſtilential Bubo's; for they are ſaid to draw out all the Venom, and ſo cure the Sick. The little Bone of the Leg is alſo ſaid to cure the Tooth-ach, being outwardly applied; alſo the Falling-Sickneſs and Agues, being applied to the Pulſe; and if a dryed Toad be held in the Hand, put under the Arm-pits, or upon the Heart, it certainly cures any Hemorrhage. The Powder of a Toad calcined ſprinkled upon an ulcerated Cancer does much good. The Oyl of Toads is uſed ſucceſsfully for the King's-evil.

A live Dog applied to the Belly, eaſes the Pain of the Colick.

Dogs Greaſe is preferred before all other. Some roaſt a Dog, and uſe the Dripping in a Conſumption with excellent Succeſs: But the white Dung, called *Album Græcum*, is moſt commonly uſed in Phyſick; and that it ſhould be more effectual, the Dog ſhould be fed only with Bones, and ſhould ſcarce ever drink. This Dung is of excellent Uſe for a Dyſentery and Colick. It is alſo uſed inwardly for a Quinſey, and other Inflammations of the Jaws; and it breaks the Abſceſs in a Quinſey, being mixed with Honey, and the Part anointed therewith. The Virtue of it is moſt effectual, when it is taken in *July*, and it is thought to be of ſo great Uſe in a Quinſey, that there is no Oyntment or Plaſter made for it without *Album Græcum* or Swallows Neſt.

The Brain of a Dog is commended for Madneſs.

Goats Horns are commonly uſed for Fumes in Hyſteric Fits, and for Fits of the Falling-Sickneſs. Goats Blood is reckoned a Specific in a Pleuriſy, and for nephritic Pains, and the Gravel, and it powerfully expels Gravel. It is alſo good in Falls, Bruiſes, and Wounds.

Deers Suet is good in Gliſters for Bloody-Fluxes; for it purifies and heals Ulcers of the Bowels, eſpecially if it be diſſolved in a vulnerary Decoction, and injected for a Gliſter. If the Navel be anointed with Deers Suet, a Strangury will be ſoon and certainly cured.

Goats Milk is preferred in Phyſick, eſpecially for the Cure of the Scurvy and the Gout. The Urine of a Goat is a Specific for the Stone in the Kidneys, and for Preſervation from it. The Bladder is ſaid to be a certain Cure for Incontinence of Urine.

Caſtor is an amphibeous Animal, which lives partly upon the Water and partly upon the Earth. The Fat of it is excellent in Diſeaſes of the Head and Womb, paralytick Limbs are anointed with it, and alſo the Belly, in the uterine Suffocation, and for After-pains.

The Caſtor is reckoned by ſome to be the Stones of the Beaſt; but this is a vulgar Errour, for the Caſtor is collected in hairy Bags placed near the Teſticles; and therefore that Caſtor wherein the Teſticles and Reins are found, is adulterate: It has a ſtong and fetid Smell, it powerfully diſcuſſes Wind, and is excellent for the Colick and hyſteric Fits. It promotes the Courſes, and expels the dead Child, and the Lochia: But all Women cannot bear the Smell of Caſtor.

Caſtor is alſo uſed in ſleepy Diſeaſes, in the Apoplexy, Lethargy, Coma, and the like, and it corrects the Virulency of Opium.

An

An old Man of fifty five Years of Age fell into a dangerous Lethargy, upon travelling in a very cold Seaſon; and when many things had been uſed to no purpoſe, he was happily cured with the following Medicine.

Take of Caſtor, two Scruples, Scammony, one Scruple; mingle them with Oxymel for two Doſes.

It is alſo good in a Lethargy to apply to the Noſtrils, a Spunge dipt in Tincture of Caſtor, and alſo when People are ſleepy by reaſon of narcotic Vapours, ariſing from Coals, Wine and Beer Cellars, and the like.

Caſtor and the Extract of it is uſually preſcribed in Gliſters, for Apoplexies and the Falling-Sickneſs, when very ſtrong Gliſters are preſcribed. The Tincture of Caſtor is alſo preſcribed for Apoplexies and Epilepſies mixed with Waters of Lilly of the Vallies, Lavender and Sage.

For a Noiſe in the Ear, and the like Diſeaſes of the Ear, Caſtor is an excellent Remedy; Caſtor being mixed with Cotton, and put into the Ear, or Cotton dipt in the Tincture may be applied to the Ear; but it ſucceeds better, if the Spirit of Ants be mixed with it; for ſo it wonderfully cures Diſeaſes of the Ears, and removes a Noiſe in them; for Spirit of Ants is of it ſelf a Specific for Diſeaſes of the Ears.

The Oyl of Caſtor is frequently uſed to anoint paralytic and trembling Members, and being dropt upon the Tongue, it ſucceeds well in the Loſs of Speech from a Palſy. The Extract of Caſtor is conveniently uſed in Gliſters, for hyſteric Diſeaſes. The Tincture of Caſtor is counted good by way of Preſervation from the Small-pox. The Spine of the Back being anointed with Oyl of Caſtor in the Fits of quartan Agues, the cold fit is thereby leſſened.

The Fat of a Cat is counted good to anoint the Navel of thoſe that have the Falling-Sickneſs, and ſome

cut

cut off the third Part of the Tail, and give three Drops of the Blood hot in the Water of Lime Flowers, to those that have Fits of the Falling-Sickneſs upon them.

Civet is reckoned a Specific in the Colick, the Navel being anointed with it; and it is alſo uſed by Women for hyſteric Fits, the privy Parts being anointed with it.

All the Stag is Alexipharmic, and all things prepared from it have the ſame Alexipharmic and Sudorific Virtues. The volatile Spirit of the Horn is frequently uſed for malignant Diſeaſes, and for an Epilepſy. The Horn has moſt Virtue in it when it is ripe and falls off of it ſelf.

Calcined Harts-horn is very proper for a Looſneſs and the Worms. A Gelly is alſo made of Harts-horn, and is uſed in malignant Diſeaſes to reſiſt and expel the Malignity. Half an Ounce, or an Ounce of it may be diſſolved in Broath, or in a Draught of Beer. It is alſo uſed to ſtrengthen.

Spirit of Hartshorn, with a little Camphor in it, is an excellent Medicine in malignant Fevers.

The Bone of a Stags Heart is nothing elſe but the Artery hardened; and Anatomiſts ſay that ſuch Bones have been found in old Mens Hearts. This is commonly reckoned very good for the Heart. It is counted a Specific againſt Miſcarriage, given with Grains of Kermes, in a convenient Vehicle.

The Pizle of a Stag is an approved Remedy for the Bloody-Flux and a Pleuriſy; a Dram of it powdered may be given in Plantain Water for the Bloody-Flux, in Coltsfoot Water, or in the Water of Carduus Benedictus for a Pleuriſy; or a Decoction may be made of the Raſpings of it; it's moreover proper for the Colic and hyſteric Fits.

Snails are much commended for the hectic Fever, and a Conſumption. *Amatus Luſitanus* cured a certain hectic

hectic Perſon with a Chicken fed with Snails, and with Aſſes Milk. They are proper for the Gout and ſuch kind of Pains. The Shells are good for a Dropſy, by forcing Urine; as much of the Powder being taken as will lye on the Point of a Knife, Morning and Evening, in ſome convenient Vehicle. The Water that drops from the Shells, being ſtrained is counted a good Coſmetic. Live Snails applied, are good for the Falling of the Anus, and for the Swelling and Pain of the Piles.

Ivory is good in Fevers, and to correct an acid Humour, and for the Whites, and to prevent Miſcarriage. It is alexipharmic, kills Worms, and is good for hyſteric Fits.

Mares Milk is commended for a Conſumption. The Dung of Horſes is frequently and ſuccesfully uſed in Phyſick. It is uſed outwardly and inwardly to ſtop bleeding. It is alſo good for the Colick.

Take the Juice of freſh Dung, and drink it in a Draught of Wine or Beer, it cures the Colick and a Pluriſy. It is alſo uſed for a Quinſey. It is outwardly uſed for Inflammations of the Jaws, and it is commonly uſed for a Strangury, and it is reckoned a preſent Remedy for the uterine Suffocation: But Women with Child muſt not uſe it, becauſe it cauſes Abortion. The Warts that grow to the Feet of Horſes are much commended for hyſteric Fits, taken inwardly in the Form of Powder, or uſed outwardly.

Take of the Warts of a Horſe, one Ounce, Aſſa Fœtida, half a Dram, the Hoof of a Goat, two Drams; make a Powder, and let a Scruple of it be burnt, ſo as that the Fume may be conveyed thro' a Tunnel to the Uterus.

The Teſticles of a Horſe are excellent to expel the Secundine, or dead Child, and to provoke the Lochia.

Take

Take of the Teſticles of a Horſe, one Dram; of Borax, half a Dram; of Saffron, one Scruple; with a ſufficient Quantity of White-Lilly-Water, make a Mixture.

They are alſo much commended for the Colick.

The Hoofs of Horſes are uſed for hyſteric Fits.

The Pizle of a Sea-horſe is good for the Stone and Cramp.

The Powder of a Hedg-hog is reckoned an excellent Remedy for involuntary Urine, half a Dram, or a Dram of it being taken.

The Breath of a Man clears the Eye-ſight, and is good for Inflammations of the Eyes, eſpecially if Fennel Seeds have been chewed in the Mouth before. The Nails infuſed in Wine or Drink, purge and vomit much.

The Spittle of a Man faſting is good for the biting of Serpents, and of other venemous Creatures, and is coſmetic. The Wax of the Ears is good for the Colic, and is very vulnerary.

Womans Milk is much commended for a Conſumption, eſpecially if the conſumptive Perſon ſucks the Woman. *Foreſtus* mentions an Obſervation of a very conſumptive young Man, who was ſo far reſtored by ſucking a Woman, that at length he got her with Child. An Epithem made of Womans Milk and Poppy Seeds boyled in it provokes Sleep. A menſtruous Cloath applied to a gouty Foot eaſes the Pain, and cures an Eriſypelas. The Secundine of a Woman is excellent for expelling the After-birth, and the dead Child, and there is no better Remedy to cauſe Abortion, and it is of excellent Uſe in difficult Labour. A Spirit exracted from the Secundine cures the Falling-Sickneſs, and takes off Spots, the Child being preſently beſmeared as ſoon as it is born. The way of preparing the true Spirit of the Secundine is as follows.

Take the Secundine of a healthy Woman, if it can be of her first Child, being a Son, with all the Vessels and Appurtenances; put them into a Bolt-head, set on the Receiver, and lute them well; place them in a gentle Digestion to purifie, and so by internal Fermentation the whole Secundine will be turned into a Liquor, but they ought to stand about half a Year in Digestion; afterwards, by Distillation, a very volatile Spirit will come forth, of excellent Virtue for Womens Diseases, to hasten Delivery, and to provoke Urine and the Courses. The Dose is a Spoonful or two. With this Medicine a Woman was cured that had a Stoppage of her Courses for six Years; and with the same Spirit the King of Poland *was cured of the Falling-Sickness. But you must take notice, in making the Spirit, before you begin the Operation you must take off the Cuticle of the Secundine.*

Man's Urine expels the Venom of Vipers, and there are some Observations in *Zacutus Lusitanus*, of Men that have bin Cured of the Biting of Vipers, by taking some Ounces of Urine. It eases the Pain of the Gout. The Drinking Ones own Urine is a preservation against the Plague, and is of great use in Curing the Jaundice, the Dropsie, Cachexy, and a Scirrhus of the Spleen. A Womans drinking her Husband's Water renders her Labour more easie. A Glister made of a Boy's Urine is reckoned a Specific for the Timpany: It may be given alone, or with carminative Plants boiled in it. The Seeds of Daucus, Fennel, and Cummin boiled in Urine, and drunk, is also very good for a Timpany. It Cures Ulcerations of the Ears. The Spirit of Urine is an excellent Medicine; it opens Obstructions, forces Urine, and expels Gravel, provokes Sweat powerfully, and is a Catholick Medicine for intermitting Fevers, before the Fit, Universals being first used. It is excellent for the Scurvy, especially if it be mingled with the Spirit of Scurvy-grass prepared

pared by Fermentation, which is alſo excellent for Hypochondriac Diſeaſes, and for the Cachexy of Virgins, a Vomit being firſt uſed. Three Virgins have bin lately Cured by this method. Being outwardly applyed it Cures Collick Pains ariſing from an acid. For an Epilepſy and ſleepy Diſeaſes, it is applied to the Noſtrils, and taken inwardly, and is of good uſe.

Man's Excrement is excellent for Inflammations. It eaſes Pain, mollifies, and diſcuſſes. Being applied to Carbuncles and Peſtilential Bubo's, it eaſes the Pain, draws out the Venom, and ripens preſently. This has bin approved of in a raging Plague. It is good for the biting of Venomons Creatures; ſo ſays *Zacutus Luſitanus*, *Matthiolus*, *Dioſcorides*, and *Riverius*. There is a Serpent in the *Eaſt-Indies*, the Biting whereof is certain Death, unleſs Man's Dung be applied to it within eight hours. The diſtilled Water of Man's Excrement is good for Diſeaſes of the Eyes, the Stone, Dropſy, and Epilepſy; and being taken inwardly, it Cures the Biting of Mad Dogs, Whitlows, and Carbuncles.

Blood taken inwardly ſtops Bleeding. Blood diſtill'd yields a Volatile Spirit, which is proper for an Epilepſy, being given at the New and Full Moon.

Man's Bones are uſed for the Bloody Flux, and Palſy: But the Skull is moſt frequently uſed, eſpecially of a Man that dies a violent Death. That which has bin whitened by lying long abroad, has much more Vertue than one dug out of a Grave. The Raſpings of it taken inwardly are very good for the Falling Sickneſs. I knew, ſays *Etmuller*, a Country-man that cured many, both Young and Old, of the Falling Sickneſs, with this very Remedy.

The Moſs that grows on dead Men's Skulls ſtops Bleeding in any part of the Body, being applied to it.

The Aſhes of Hares Down burnt, and taken inward-

Take the Secundine of a healthy Woman, if it can be of her firſt Child, being a Son, with all the Veſſels and Appurtenances; put them into a Bolt-head, ſet on the Receiver, and lute them well; place them in a gentle Digeſtion to purifie, and ſo by internal Fermentation the whole Secundine will be turned into a Liquor, but they ought to ſtand about half a Year in Digeſtion; afterwards, by Diſtillation, a very volatile Spirit will come forth, of excellent Virtue for Womens Diſeaſes, to haſten Delivery, and to provoke Urine and the Courſes. The Doſe is a Spoonful or two. With this Medicine a Woman was cured that had a Stoppage of her Courſes for ſix Years; and with the ſame Spirit the King of Poland *was cured of the Falling-Sickneſs. But you muſt take notice, in making the Spirit, before you begin the Operation you muſt take off the Cuticle of the Secundine.*

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ly, expels Gravel. The Eye of a Hare haſtens Delivery. The Blood of a Hare is an excellent Remedy for the bloody Flux: A Rag dipt in the Blood of a Hare, and applied to an Eryſipelas, Cures it; ſo ſays *Helmont.* The Brains of an Hare are uſed to the Gums to render the bringing out of Teeth eaſie. The Heart dryed and powdered, is a certain Cure for a Quartain Ague, a fourth part of it being taken before every Fit. The Womb of a Hare dryed is much commended for a Dropſy of the Womb, and Barrenneſs. The Fat of a Hare is very good to draw out Thorns, and other Things that ſtick in the Fleſh. It is alſo uſed for Ruptures, the Spine of the Back being anointed with it. The Hairs are uſed with other Things, to ſtop Bleeding, and is an ingredient in *Galen*'s famous Oyntment, which is made of equal parts of Aloes, Myrrh, Frankincenſe, and the Down of a Hare burnt; this is much uſed for Bleeding, and for the ſtopping Arterial Blood.

The Tooth of a Wolf is uſed to rub the Gums of Children, to facilitate the Eruption of the Teeth. The Liver of a Wolf is commended for a Scirrhus of the Spleen, a Dram of it being taken in ſome proper water. The Guts and Dung of a Wolf are much commended by univerſal conſent of all Authors, for the Collick, a Dram of the Guts or Dung being taken at a time: Some make Girdles of the Guts, and wear it for the Collick. The Skin is alſo commended for the ſame.

Mouſe Dung is commended for involuntary Urine. The Heads of Mice calcined, and mixed with Honey cure Baldneſs. The Dung Purges, and is mixed with Suppoſitories. One or two of the Rolls of Dung powdered, and mixed with the Childs Pap, Purges neatly.

The Lungs of a Sheep applyed hot to the Head, is good for a Frenzy. *Amatus Luſitanus* ſays, that the Cawl of a Sheep applyed hot to the Belly, is an approved Remedy for the Collick, and Bloody Flux. The Dung is com-

commended for a Quinzy, and the Jaundice; and indeed all Dungs Cure the Jaundice, eſpecially Gooſe Dung. A Dram of the Bladder of a Sheep dryed, is commended for involuntary Urine.

Frogs in general, are uſed in Phyſick; but the Green are beſt, and ſuch as live in wholſome and clear Waters. Frogs powdered and taken inwardly, are good to ſtop Blood; and they are outwardly uſed for malignant Ulcers, and ulcerated Cancers. Some commend them roaſted, for a Hectic Fever and Conſumption. The diſtilled Water, and the Powder of them, is good for malignant and inflamed Ulcers; and others commend a green Frog calcined, to prevent Fits in Children; as much of the Powder as will lye on the point of a Knife being given to the Child as ſoon as it is Born, before it has ſuckt or taken any other thing.

A Rhinoceros is a vaſt Animal; the Horn in the Noſtril is much commended for malignant Diſeaſes: The Doſe of it is from half a Scruple to a Scruple. Some make drinking Cups of it, and think they will preſerve from Poyſon, and prevent Drunkenneſs.

A Serpent, or Viper, is not Venomous unleſs it be inraged. There are many great Serpents which are not Venomous, and cannot be provoked to Anger by any means. The beſt time to take them is in the Spring. The whole Serpent is Alexipharmic. The Powder of them is called *Bezoardicum animale*, and the Spirit of them, and of Vipers, is very proper for malignant Diſeaſes. When there is any ſuſpicion of malignity, you may give a Scruple, or half a Dram of the Powder. It is alſo of uſe in malignant Fevers, the Spotted Fever, and the Plague, and provokes Sweat. And Serpents and Vipers are very proper for the French Diſeaſe, in whatever Form they are uſed. They confirm Health, and prolong Life. The Duke of *Bavaria* fed Fowl with Serpents, and afterwards eat them, and

ſo came to have Children; and they are commended by others for Barrenneſs. The Skins which they put off in the Spring are very proper to haſten the Birth, an Oyntment being made of them, or they being worn in the manner of a Girdle. They are alſo much commended to make the Hair grow; the Powder of the Skin mixed with the Powder of River Crabs is very good for the Wounds of the Nerves and Tendons. The ſame Powder is much commended for Wounds of the Eyes, and for freſh Wounds; a Decoction of the Skins is much commended for the Lowſy Diſeaſe. The Serpentine Stone is of a ſtony, or rather bony ſubſtance; it is found about the Head of a Serpent in the *Eaſt-Indies.* This Stone being applied to a Venomous Bite ſticks, till it draw out the Poyſon; when it falls off, they put it into Milk, that it may caſt forth the Poyſon into the Milk; afterwards they take it out again, and apply it to the Bite, and if any Venom remain, it ſticks to the Wound, if not, it falls off of its own accord. A Dog bit by a Viper was lately Cured by this Stone, and the Milk, into which it was caſt after the Application, being given to another Dog, killed him. The Powder is good for all cutaneous Diſeaſes.

As the Conformation of the internal and external parts of a Hog, is much like that of a Man, ſo the Blood and Fleſh is much like the Blood and Fleſh of a Man. The Gall of a Hog is good for Diſeaſes of the Eyes and Ears. The Lard is much uſed to mollifie Humours, and eaſe Swellings; for which purpoſe it is often put into Cataplaſms, and outwardly applied.

The following Remedy is commended for a violent Cough, eſpecially that which is moſt troubleſome in the Night.

Take three heads of Garlick, and with a ſufficient quantity of Lard make an Oyntment, wherewith anoint the Soles of the Feet in the Evening, when the Sick is going to Bed, and when he is in Bed anoint the Spine of the Back

Back with it; and if you uſe this Oyntment in the ſame manner, it will Cure the moſt violent Cough.

Hogs Dung is excellent to ſtop any ſort of Bleeding, eſpecially of the Noſtrils. The Juice of the freſh Dung being preſſed out, and taken inwardly, or applied to the Forehead and Noſtrils, or with Sugar you may make a Syrup of the Juice, or the dry Dung may be uſed with ſome proper Water inwardly, or outwardly, or the hot Dung may be applied to the Forehead and Temples, juſt as it is evacuated, or the Sick may ſmell to it, or the dried Dung may be put up the Noſtrils: But which way ſoever it is uſed, it does Wonders in this caſe:

Take of the Powder of Hogs Dung dryed, three Drams; of the Powder of Roſes half a Dram, to correct the Stink; mix them with the Juice of Plantain, and put it up the Noſtrils with Cotton; but the Juice of Nettles is better than the Juice of Plantain in this caſe.

The Matrix of a Sow dried in the Smoak, and half a Dram of it being given, is an excellent Remedy for the Epilepſy. The diſtilled Water of Pork is much commended for the Hectic Fever and Conſumption.

A calcined Mole is uſed for a Leproſy. The Wine wherein a Mole has bin boiled is excellent for the Kings Evil, and a calcined Mole is much commended for cancerous, and ſcorbutick Ulcers. The Blood of a Mole Cures Baldneſs, and is counted good for a Gangreen, a Paper being dipt in it and dryed, and afterwards moiſtened in ſome proper Water. The Teeth taken out of a live Mole are ſaid to be good for a Gangreen of the Paps, and for the Tooth-ach, and for breeding Teeth. The Blood and Skin of a Mole is a certain Cure for Whitlows.

Vipers are very proper for malignant and venomous Diſeaſes, and for the Pox, and Leproſy. *Galen* mentions an obſervation of a deſperate Leproſy that was

cured by the Wine wherein Vipers were killed. Vipers are alſo very good for a malignant Itch, and for Barrenneſs. *Helidæus Paduanus* in his Obſervations, mentions a rare Caſe of a leprous and barren Woman that was cured of her Leproſy and Barrenneſs by a Decoction of Vipers. Moreover, Vipers are an excellent Coſmetic, being uſed inwardly; and therefore the *Italian* Women drink Viper Wine to beautify the Face; and there is no better Medicine than Vipers uſed inwardly and outwardly for the King's Evil. The Fat and Oyl of Vipers are commonly uſed; the Hearts and Livers are reckoned a Specific for the Cure of an Epidemic Dyſentery. For the Cure of the Bite of a Viper, there is no better Remedy than a red hot Iron applied ſo near as to heat, and not to burn. The Fat is excellent to take off Wrinkles from the Face. The beſt way of preparing Vipers is to take out their Bowels, and to dry them with the Fume of Juniper Berries; when they are dryed, powder them, to three Parts of the Powder add Flowers of Sulphur and Myrrh powdered, each one Part, ſprinkle upon them ſome Drops of the Oyls of Cinnamon and Rhodium, and you will have an excellent Animal Bezoardic Powder. Or.

Take Vipers, waſh them well in Malago Wine, mix them with Sal Prunella, dry them in a hot Place, ſo as they may be reduced to Powder; but firſt wipe off the Sal Prunella: Add to this Powder the Hearts and Livers powdered, ſprinkle them with Spirit of Wine, and keep them for Uſe.

Thoſe that deſire more Compoſitions may conſult *Zwelfer*. The Troches of Vipers is now diſliked, becauſe there is ſo great a Maſs of Bread mixed with a ſmall Quantity of the Vipers, and therefore the Moderns, in the Compoſition of Treacle, uſe inſtead of the Troches, the Animal Bezoardic Powder.

The

The Fat of Badgers is more penetrating than other Fats, and therefore applied to the Reins in nephritic Diſeaſes, with Oyntment of Marſh-mallows, when we deſign to eaſe Païn, or the Oyl of Scorpions when we intend to force Urine or the Stone.

The Unicorns Horn, which is more properly the Tooth of a Fiſh in *Greenland*, is frequently uſed for malignant and peſtilential Fevers, the Small-pox, Meaſles. The Doſe is from half a Scruple to one Scruple, or half a Dram. It provokes Sweat. A Gelly may be made of it by boyling.

Bears Greaſe mixed with the Aſhes of Mice is an excellent Remedy for Baldneſs. It's uſed to diſcuſs and diſſolve Tumours, and is much commended for Ruptures, the Loins being anointed with it about the Spine of the Back, after the Gut is put up, for it prevents the falling again. Some commend the Greaſe waſh'd in Frogs Span-Water to eaſe the Gout: But it is to be feared it repels the Matter. It is alſo a very good Coſmetic.

The Fat of Foxes is much in Uſe for Diſeaſes of the Nerves, Tremblings, and a Palſy. The Oyl of Foxes diſcuſſes powerfully, is anodyne, and is proper for the Contraction and Induration of the Nerves and Tendons, they being anointed with it. The Lungs are much commended for Diſeaſes of the Lungs, eſpecially for Wounds and Ulcers of them. The Lohoch of Fox-Lungs is is commended for and Aſthma and a Cough. The Blood of a Duck is alexipharmic; and the more Ducks feed on Toads, the more alexipharmic the Blood is. If you apply a living Duck, the Feathers being pulled off behind, to the Stomach, it will eaſe the Pain of the Cholick; and it is wonderful, how the Podex of a Bird applied to peſtilential Bubo's and Carbuncles, eſpecially of a Hen, does draw out the Poyſon, as alſo from venemous Bites: But the Fowl dyes after the Application.

Gooſe

Gooſe Fat is much uſed in Phyſic, and is more penetrating than Lard, and therefore is uſed in paralytic Diſeaſes, and Convulſions of the Nerves. The People of *Weſtphalia* uſe the Vapour of the Fat to cure the ſcorbutic Palſy, wherewith they are often ſeized. They boil it in Water, and receive the Vapour upon the paralytic Member. The Greaſe taken with a roaſted Apple, mollifies the Belly when it is bound. The Feet and Hands being anointed with it are defended againſt the Inclemency of the Cold. An excellent Liniment for a Palſy is made of a Gooſe in the following manner.

Take a Gooſe draw it, and fill the Belly with nervine Plants and Oyntments; roaſt it, and the Fat which drips in roaſting is an excellent Remedy for paralytic Members. The Dung is very ſalt, and very penetrating, and frequently uſed as a ſpecific for the Jaundice, a Dram of it being taken at a time; and it will be more effectual if the Gooſe be fed with Celandine, wherewith Geeſe are much delighted: It is alſo a great Specific for the Scurvy, being taken in the Form of a Powder or Decoction. The curious Opthalmic Water of Maximilian *the Emperour is made of freſh Gooſe Dung.*

Take the Dung of young Geeſe collected in April *or* May; *diſtil it, and drop the Water into the Eyes. It clarifies the Sight, diſcuſſes Suffuſions, and cures an Inflammation.*

The Tongue of a Gooſe cures the Strangury, being firſt dried; and if it be eaten freſh, it cures involuntary Urine.

Peacocks Dung is a Specific for the Falling-Sickneſs, and Giddineſs. A Dram of the Powder may be taken at a time, or it may be infuſed in Wine. It is alſo given in Gliſters; half an Ounce, or an Ounce may be mixed with a Gliſter. It ſtimulates much, if the Epilepſy proceed from a Conſent of the inferiour Parts, from

rom the Pancreas or Meſentery. Some ſay that Men ught to take Peacock Dung, and that Women ſhould ke the Dung of the Peahen.

Take of the Dung, one Handful; pour upon it a ſufficient Quantity of Wine; ſtrain it thro' a linnen Rag, and divide it into three Doſes, each to be taken before the Fit of Giddineſs, and let the ſick be well covered up, that he may ſweat. This is reckoned an excellent Remedy for Giddineſs.

The Fat of an Eel breeds Hair, and the Skin is reckned good for the Falling of the Womb, the Fume of it being received into the Womb.

Crabs are very proper for thoſe that have a hectic fever and are conſumptive, and for thoſe that have Ulcers in the Lungs and Reins; and indeed the whole Crab is vulnerary. A Crab is outwardly of much Uſe, being bruiſed and applied in the Form of a Cataplaſm; or the Juice may be uſed for a Fomentation, and ſo the Juice preſſed out is an excellent Remedy for the Headach in malignant Fevers, eſpecially if there be fear of a Delirium or Phrenzy.

Take of Frog-ſpan Water, eight Ounces; of the Juice of River Crabs, two Ounces; of Saffron, one Ounce; of Opium corrected with Vinegar, half a Dram; of Camphor, one Scruple; mingle them for an Epithem. This is an excellent Remedy for Phrenſies, and Headaches ariſing from malignant Fevers; it is alſo proper for Pains and Heats in the Reins occaſioned by nephritic Diſeaſes, and the Stone; and Crabs and the Juice of them outwardly applied are proper for all Sorts of Inflammations; and for a Quinſey there is no better Remedy than the Juice of Crabs mixed with the Juice of Houſleek; and the Juice newly preſſed out is good for Burns. The Juice mixed with the Juice of Tobacco is good for ſordid Ulcers and Fiſtula's. And becauſe the Crab is wholly vulnerary, it is conveniently mixed with vulnerary Decoctions. The following Decoction is much commended.

Take

Take of Crabs, Number twenty; of round Birthwort half an Ounce; of Comfry half an Ounce; of the Leaves of Bugle, Ladies Mantle, Sanicle, Agrimony, Bettony; each one Handful; boyl them in a sufficient Quantity of common Water and Wine, and make a Decoction.

It is applied outwardly to Wounds with Pledgets dipt in it, and taken inwardly twice a Day, six Ounces at a time, four Hours before eating; an Ounce of Syrup of Maiden-hair may be added to it; or if the sick be thirsty, an ounce of Syrup of Lemons. *Poterius* wonderfully commends the Virtue of this Decoction taken inwardly, or used outwardly for Ulcers and Cuts of the Nerves and Tendons. Upon which account he says, it ought to be well noted. The Ashes of these Crabs are much commended by the Ancients, and *Galen*, for the Bite of a mad Dog, with the Root of Gentian.

Take River Crabs gathered at full Moon, put them into an earthen Vessel not glazed, and dry them by degrees at the Mouth of an Oven, but take care they be not burnt; afterwards powder them in a stone Mortar. This Powder is counted extraordinary good for Ulcers of the Reins and Bladder.

Crabs are also reckoned very good to prevent Abortion; the Woman may take the Juice mixed with Wine, or eat them being bruised in Chicken Broath.

Crabs Stones are commonly called Crabs Eyes, but falsly; for the Crabs Eyes are black, and that which is called Crabs Eyes is nothing else but a slimy Humour coagulated in the Stomach of Crabs. The Crabs Eyes consist of abundance of Alcali. They are good to correct acid Humours, and for the Collic and hysteric Fits, and such-like Diseases arising from an Acid. They are vulnerary, and cure Ulcers, and are very proper for Falls, and a Pleurisy. They provoke Urine, and expel Gravel. They take off the Effervescences of the Blood, and cure intermitting Fevers.

The

The Gaul of a Carp is commended for Diſeaſes of the Eyes, eſpecially when they are to be cleanſed from Clouds, the Stone that is to be found in a Carps Head is good to ſtop Bleeding, and for the Falling-Sickneſs, and force Urine and expel Gravel. There are ſmall Stones alſo placed above the Eyes of a Carp, which are better than that in the Head for an Epilepſy.

Cocle-ſhells are commended for intermitting Fevers; the Fleſh of them are commended for a Conſumption and a hectic Fever.

The Jaw of a Pike is counted a Specific for a Pleuriſy and Quinſy. The Fat is good for Childrens Coughs, their Feet being anointed with it in the Evening.

The Liver of a Lamprey being hanged in the gentle Heat of the Sun, turns into an Oyly Liquor, which is an excellent Specific for Dullneſs and Weakneſs of Sight. *Foreſtus* mentions an Obſervation of one, that being wholly deprived of Sight, by reaſon of ſharp Humours, was cured by this Liquor applyed to the Eyelids. The *Dutch* frequently uſe it ſucceſsfully in this Caſe.

The Stone that is found in the Head of a Pearch is counted an excellent Remedy to force Urine, to expel Gravel, and to cleanſe the Reins, a Scruple or half a Dram of it being taken at a time.

Cutle Bone drys and cleanſes much; it is a Specific for a Gonorrhea. The Doſe of it is a Scruple, or half a Dram mixed with Conſerve of Roſes. The Bone calcined is mixed with Dentifrices, or it may be made into a Liniment, and being ſprinkled with the Juice of Scurvy-graſs, or the Spirit of it, it cures the Scurvy in the Mouth, and is good for Diſeaſes of the Eyes.

A Tench is much commended for curing the Jaundice, being outwardly applied. Some apply it to the Navel till it dyes; others to the Soles of the Feet; and ſome others to the Region of the Spleen; but it is beſt to apply it to the Liver; for being kept to it a Night,

Night, the next Morning that Part which is applied to the Fleſh appears yellow and ſwelled, and then they ſay the Jaundice is certainly cured.

The Fat of a Trout is much commended for Chaps in any Part of the Body, eſpecially of the Fundament. Some burn Trouts Teeth, and give the Powder in Parſly Water for the Stone: A Dram or two may be taken in Winter-cherry-water.

Bees dry'd and powdered, and mixed with Honey, are counted good for Baldneſs, the Part being anointed with it. Honey is the Eſſence of Plants, which the Bees ſuck from Flowers, and when it ferments in their Stomachs, they vomit it up in the Comb; the thicker Part of it makes Wax. Honey cleanſes, being taken inwardly, or outwardly applyed. It cures Wounds and Ulcers, and is good for Diſeaſes of the Lungs, and is frequently mixed with digeſtive Oyntments.

Honey is good for old Men, but naught for ſuch as are choleric, melancholy, and for Children: but is counted very good for Diſeaſes of the Reins.

Honey differs much according to the Variety of Plants from whence it is gathered. Wax is the groſſer Part of Honey, and in it the Honey is contained. It is an excellent Diuretic, being uſed inwardly, and it penetrates, incides, and opens. Outwardly uſed it is much commended for hard and ſcirrhous Tumours, and is commonly an Ingredient in Plaſters.

Spiders are much commended for the Cure of intermitting Fevers. Some apply them to the Wriſts, others put them alive into Nut-ſhells, and put them about the Neck, eſpecially for Quartan Agues. A Country Man uſed to give a Scruple, or half a Dram of powdered Spiders with good Succeſs, for Fevers. A Spiders Web is commonly uſed to ſtop bleeding, and to heal new Cuts, being mixed with Crums of Bread chewed. The ſimple Oyl of Spiders by Infuſion is uſed to ſoften Plaſters and Oyntments that are applied to

peſti-

peſtilential Bubo's, and malignant and ill-conditioned Ulcers; and it is alſo uſed to anoint the Pulſe, and the Region of the Heart, in ſpotted and peſtilential Fevers, being mixed with compound Oyl of Scorpions, or Oyl of Ambar.

Millepedes, tho' they are contemptible Inſects, are of much uſe in Phyſick. They abound with Volatile Salt, and are very Diuretic, and a Specific for preventing and Curing the Stone, being infuſed in Beer. They are alſo good for Diſeaſes of the Spleen and Hypochondres, and for an Aſthma, and Obruction of the Lungs. They are very Vulnerary, and are uſed inwardly for malignant Ulcers, and Cancers. They are alſo ſaid to be good for the Scorbutic Gout, and for Convulſions.

Cantharides uſed inwardly, force Urine more than any thing elſe; but they corrode the Bladder, and cauſe a Bloody Urine, and therefore it is not ſafe to uſe them. They are moſt commonly uſed to raiſe Bliſters, their Wings and Heads being plucked off. Some mix five or ſix with an Ounce, or an Ounce and an half of Leaven, and half an Ounce of the Pulp of Figs; others take a Dram and an half, or two Drams of Cantharides, and mix them with the Crum of Rye Bread, and moiſten it with ſome proper Water; when you would have a more powerful Bliſtring Plaſter, mix Muſtard Seed with them. Some think that Vinegar, or Leaven, leſſens the Vertue of the Cantharides, but I have obſerved the contrary. Some prepare indolent Veſicatories with Cantharides, Myrrh, and Maſtick. Some prepare Cantharides with a ſufficient quantity of Wine, and uſe them inwardly for the Gout. Wenches uſe them to cauſe Abortion, but not without great danger. An Old Man that married a young Wife, took Cantharides to make him Vigorous, but he died the next day after his Marriage. The Oyl

of

of Cantharides is uſed to provoke Venery, the Penis and Teſticles being anointed with it.

The greater and leſſer Ants are uſed in Phyſick; but thoſe are chiefly to be choſen that have Wings; and they are found near Birch Trees. A Spirit is made of them, which is very proper to ſtrengthen the Body, and is alſo good for an Apoplexy, Giddineſs, and Catarrh: It is Diuretic, and ſtimulates Venery. You may make the Spirit in the following manner: Put a piece of Cheeſe into a Cucurbit, and thruſt the Cucurbit into a Hill of Ants, and they will be allured by the Cheeſe to run in; when you have got enough, take out the Cheeſe, and pour in Spirit of Wine three Fingers above them, diſtill it, and add new Ants to the Wine, and ſo by cohobating often, you will have a good Spirit.

The Oyl and Spirit outwardly uſed is much commended to help Hearing. Tincture of Caſtor mixed with the Spirit, and put into the Ear with Cotton, is very good to ſtrengthen and help the Hearing. The Spirit of Ants, and Spirit of Worms, are much commended for the Gout and Diſeaſes of the Joynts, and for iſchidiack Pains, and the Palſy, the Parts being anointed with them. Ants Eggs bruiſed, and an Oyl prepared of them, are much commended for dullneſs of hearing: But the Eggs are not to be taken inwardly, for they generate abundance of Wind. A heap of Ants boiled in Water, is an excellent Bath for Diſeaſes of the Nerves and Muſcles, and for a Palſy, and the Gout. It alſo cures Barrenneſs and the Hip-Gout. The Oyl of Ants made by Infuſion provokes Venery, the Penis, Teſticles, and the Muſcles that erect the Penis, being anointed.

Earth-worms creep forth plentifully in an Evening after Rain. Thoſe are more eſpecially commended, which have red Rings about their Neck, and theſe are much uſed in Phyſick. They provoke Urine, and are

good

good for all Diſeaſes that proceed from an Acid, for the Scurvy, the Scorbutical Gout, and Scorbutical Convulſions, the Spirit of them being uſed inwardly, or the Worms outwardly applied in the form of a Cataplaſm, or the live Worms may be applyed to the part affected, or the part affected may be anointed with the Spirit of Earth-worms mixed with the Spirit of Ants, The Spirit of Worms is beſt made in the following manner.

Put waſhed Worms into a Cucurbit ſo well ſtopped, that nothing can exhale. Place the Cucurbit to digeſt, either in *Balneo Mariæ*, or in the Heat of the Sun, that the Worms may putrify and ferment; and this Fermentation is ſometimes ſo very great, that it breaks the Glaſs. The Fermentation being over, the Earthy Part ſinks to the bottom, and the Skins ſwim on the top, the ſpirituous Liquor is in the middle. Separate this, and diſtill it, and it will yield a Spirit; this Spirit is an excellent Diuretic.

The Decoction of Worms is much commended by *Sennertus*, for the bloody Flux. The Powder of Worms is good for the Jaundice, ſo is the Decoction of Earth-worms, with the greater Celandine, eſpecially if ſome Juniper-berries be added to it. Earth-worms boyled with Aperitive Plants, are very good in many Diſeaſes, by reaſon of their penetrating, opening, and Diuretick Faculty; and are therefore very good for Diſeaſes of the Spleen, and the Dropſy. The Powder of Worms is very good to increaſe Milk, a Dram of it being taken at a time alone, or with Fennel-ſeed. The Oyl of Worms is very good for Wounds and Bruiſes of the Nerves. The following Oyntment is very good for Wounds or Punctures of the Nerves.

Take of the Flowers of St. John's *Wort one handful, of common Oyl three Quarts, Turpentine one Pound, Earth-worms powdered three Ounces, Saffron a little, infuſe them together, and make an Oyntment.*

The Water of Earth-worms is good for a Dropſy, but the Spirit is much more effectual, and is alſo good to provoke the Courſes, and open Obſtructions of the Womb.

I come next to treat of Minerals.

Lemnian Earth is brought from the Iſland of *Lemnos*, and has bin very much commended ever ſince *Galen*'s time, for expelling Poyſon.

Bole-Armenick is a pale red Earth, that is brought from *Armenia*; it participates of Iron, and being diſſolved by an Acid, it appears Green like a ſolution of Steel. It is aſtringent, and ſtops Catarrhs; it ſtops Bleeding at the Noſe, being applied like a Cataplaſm to the Forehead, mixed with Vinegar.

Chalk is counted aſtringent, and a Dram of it taken in Wine or Goats-milk, is commended for killing of Worms.

Marle is good to increaſe Milk, and for the bloody Flux, and outwardly uſed, it cleanſes Ulcers, and cures Wounds.

Oker is impregnated with Iron. It is uſed outwardly in Plaiſters, and Cataplaſms, to bind and conglutinate.

Mineral Waters called *Acidulæ*, are ſuch, as paſſing thro' the ſecret paſſages of the Earth, are impregnated with a ſub-acid Salt, the Water corroding the Iron. Thoſe that drink them void their Excrements blackiſh, becauſe the Iron which is drunk with the Waters is ſeparated in the Body, and joined with the acid Humours of the Body. Theſe Waters are good for Cachexies, Obſtructions, the Scurvy, and Hypochondriack Diſeaſes, and the like. In drinking of them, the Patient muſt begin with a ſmall Doſe, and increaſe daily; but they muſt not be uſed before the Body has bin well cleanſed, and the paſſages are open, and they ought to be drunk at the Fountain Head; for by carrying far, or keeping long, the Iron ſinks to the bottom.

Bath

Bath Waters ariſe from Sulphureous Metals. They are much uſed for Diſeaſes of the Nerves, the Palſy, and trembling of the Limbs, for cutaneous Diſeaſes, and Barrenneſs.

Dew is more penetrating and ſubtle than any other Water; but the Dew in *May* is the beſt. It is ſuppoſed to partake of the Vertue of the Plants it is collected from; for that which is taken from Eye-bright and Fennel is reckoned excellent for Diſeaſes of the Eyes.

An Amethyſt is counted good to prevent Drunkenneſs

An Adamant finely powdered Cures the bloody Flux.

A Granat is good for Diſeaſes of the Heart.

An Hyacinth applied to the Breaſt expels Poyſon, and the Confection of it is uſed for malignant Diſeaſes.

A Jaſpar Stone that has Blood Spots, ſtops bleeding at the Noſe, the Stone being held in the hand of the ſide the Blood flows from. It is alſo good for a great Flux of the Courſes.

The Nephritick Stone is of a dark green Colour, and the Superficies of it always ſeems Oyly. It is uſed inwardly and outwardly to expel Gravel.

A Ruby is ſuppoſed good for malignant and venomous Diſeaſes.

A Saphire is much commended for peſtilential Diſeaſes, and the Small Pox.

A Smaragd is ſuppoſed to be good for Convulſions, and the Bloody Flux.

Coral is good for a Diarrhea, and Dyſentery, and for malignant and burning Fevers.

Pearls abſorb Acids, and are counted by ſome very Cardiack.

The Eagles Stone rattles when you ſhake it. Being bound to a Womans Arm, it hinders Abortion; but if

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it be hanged to the Thigh, it haſtens Delivery. The Powder of it being taken inwardly expels the *Lochia*, and they ſay increaſes Milk, if it be taken in Wine or Broath. It is alſo recommended for peſtilential and malignant Diſeaſes.

Alabaſtar is ſeldom uſed, an Oyntment is only made of it, which is to cauſe Sleep, and to eaſe Pain.

The *Armenian* Stone, ſo called becauſe it was formerly brought out of *Armenia*; Purges powerfully upwards and downwards, and is therefore uſed for Melancholy, and Madneſs.

Lapis Calaminaris is uſed outwardly in Surgery, either in the form of a Powder, or mixed with Oyntments, to heal Wounds, and to incarn.

The *Blood Stone*, it has its Name from its Colour, and from its Virtue to ſtop Bleeding at the Noſe; and Fluxes of Blood from the Womb.

Lapis Judaicus, ſo called, becauſe it is found in *Judea*. It is uſed for Nephritick Pains, and for the Stone in the Bladder and Reins.

Lapis Lazuli is uſed for Diſeaſes of the Head, and has much the ſame Virtues with the *Armenian* Stone.

Oſtiocolla, ſo called becauſe it conglutinates broken Bones.

Pumex Stone is brought from *Germany*. The Powder of it is commonly ſprinkled upon Wounds; and is an excellent Dentifrice.

Talk is a ſtony ſubſtance compoſed of many Scales; it is uſed as a Coſmetic.

I come in the next place to ſpeak of Metals.

Gold is the moſt Noble of all Metals, and is called the King of Metals. It is found in ſeveral places, both in *Europe*, and in other Parts of the World. It is commonly attended with Water, and hard Stones, ſuch as are extream hard to dig. There are likewiſe ſeveral Stones that contain Particles of Gold, ſuch as are called golden *Marcaſſits*, the *Lapis Lazuli*, and the *Lapis Armenus*.

The

The *Aurum potabile*, which is much praiſed, and ſold at ſo dear a rate, is commonly nothing elſe but the Tincture of ſome Vegetable, or Mineral, whoſe colour comes near to that of Gold. Gold is a good Remedy for thoſe that have taken too much Mercury. Being taken inwardly it is thought to be a moſt potent Cordial, becauſe Aſtrologers tell us, it receives its influence from the Sun.

Aurum fulminans, called Saffron of Gold, cauſes Sweat, and drives out ill Humours by Tranſpiration. It may be given in the Small Pox, from two to ſix Grains, in a Lozenge, or Electuary. It ſtops Vomiting, and is alſo good to moderate the activity of Mercury.

Silver has the ſecond place among Metals. It is a very compact Body, more ſmooth and poliſhed by Nature than Gold, and its Pores are more even upon the Surface. Criſtals of Silver are made in the following manner.

Diſſolve one or two Ounces of coppel Silver in three times as much Spirit of Niter. Pour forth your Diſſolution into a Glaſs Cucurbit, ſet it in a gentle Sand Fire, evaporate about the fourth part of the moiſture, and ſo let the reſt cool without ſtirring it, it will turn into Criſtals, which you muſt ſeparate from the Liquor, and after you have dryed them, keep them in a Viol well ſtopt. You may again fall to evaporating half the remaining Liquor, and ſet it a Criſtalizing as before. You may repeat theſe Evaporations, and Criſtalizations, till all your Silver is turned into Criſtals.

They are uſed to make an Eſcar, by touching the Part with it. It is alſo given inwardly for Dropſies, and for Diſeaſes of the Head, from two to ſix Grains in ſome ſpecific Water. It purges gently.

The infernal Stone is Silver rendred Cauſtick, by the Salts of the Spirit of Niter. The Tincture of Silver is a diſſolution of ſome of the more rarified parts of

Silver made in Spirit of Wine, whetted by alcaly Salts. This Tincture is uſed for the Falling Sickneſs, Palſy, Apoplexy, and other Diſeaſes of the Head. It is alſo uſed in malignant Fevers, and all other Diſeaſes, wherein it is requiſite to drive out the Humour by Perſpiration. The Doſe is from ſix to ſixteen Drops, in ſome convenient Vehicle.

Tin is a Metal that comes near unto Silver in Colour; the Salt of Tin is deſiccative, and may ſerve to Cure Tetters.

Biſmuth is a Sulphureous Marcaſſite, that is found in the Mines. The Magiſtery of Biſmuth is an excellent Coſmetic.

Lead is a Metal filled with Sulphur. Thoſe who work upon Lead are ſubject to Collicks, and the Palſy. Salt of Lead is commonly uſed in Phyſick, in Pomatums for Tetters, and Inflammations; and being taken inwardly is counted very good for the Quinſey, and to ſtop the Flux of the Courſes, and Hemorrhoids, and for the bloody Flux. The Doſe is from two Grains to four, in Knot-graſs, or Plantain Water.

Copper is a Metal that abounds with Vitriol, and Sulphur. Some attribute to it the vertue of increaſing Seed, and Curing the Diſeaſes of thoſe Parts that ſerve for Generation; but becauſe it contains in it a corroſive quality, it ought not to be uſed inwardly.

Iron is a very porous Metal, compounded of a Vitriolic Salt, Sulphur and Earth ill digeſted together; wherefore a Diſſolution of its Parts is very eaſily performed. It is found in many Mines of *Europe* in the Form of a Stone that much reſembles the Load-ſtone. The Loadſtone is alſo found in Mines of Iron, and may be reduced to Iron by a ſtrong Fire. Iron is turned into Steel by means of Horns or Nails of Animals, with which it is ſtratified, and ſo calcined.

Steel is better than Iron for making Utenſils, but for Remedies Iron is better beyond Compariſon. Iron opens

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Obſtructions of the Courſes, is good for the Scurvy, Cachexies, and hypochondriac Melancholy.

Quickſilver is a Prodigy among Metals, for it is fluid like Water, and tho it be a very heavy Body, yet it eaſily flies away, when ſet over the Fire. It is much uſed in Phyſick, and is one of the greateſt Remedies we have, when it is uſed as it ſhould be; but it is full as dangerous, when it is ignorantly uſed upon all Occaſions, and for all Sorts of Diſeaſes. Thoſe who draw it out of Mines, or work much with it, do fall into the Palſy, by reaſon of Sulphurs that continually flow from it. It is given in the Iliack Paſſion unto two or three Pounds, and is voided again by Stool to the ſame Weight. It is better to take a great deal of it than a little, becauſe a ſmall Quantity might be apt to ſtop in the Circumvolutions of the Guts, and if ſome acid Humours ſhould happen to join with it, a ſublimate Corroſive would be there made: But when a large Quantity of it is taken, there is no need of fearing this Accident, becauſe it paſſes quickly through by its own Weight.

All Oyntments, Pomatums, and Plaſters, whereof it is an Ingredient, are good againſt the Itch and Tetters, and diſſolve cold Humours.

There has been no Remedy yet found out, ſo certain for the Cure of Venereal Diſeaſes as Mercury; wherefore its greateſt Enemies have been forced to fly to it, after they have tryed a long time to no purpoſe, to drive out the Poyſon by other Remedies.

Mercurius dulcis is frequently uſed in Phyſick, and is an excellent Remedy. It is uſed for all Sorts of Venereal Diſeaſes, to open Obſtructions, and kill Worms. The Doſe is from ten to thirty Grains. White Precipitate is a Mercury diſſolved by Spirit of Niter, and precipitated by Salt into a white Powder. It is uſed to raiſe a Flux; and the Doſe is from ſix to fifteen Grains. It is alſo uſed in Pomatums for Tetters

ters and the Itch, from half a Dram to two Drams in one Ounce of Pomatum.

Red Precipitate is a Mercury impregnated with Spirit of Niter, and calcined by Fire. It is a good Eſcharotick. It eats proud Fleſh, and is uſed for laying Chancers, mixed with burnt Allom, and Ægyptiacum. Some give it inwardly to four Grains, to raiſe a Flux, but this is dangerous, unleſs rectified Spirit of Wine be burnt upon it two or three times.

Turbith Mineral is a Mercury impregnated with the Acidity of Oyl of Vitriol. It purges ſtrongly both by Vomit and Stool, and is an excellent Remedy in venereal Diſeaſes. The Doſe is from two Grains to ſix.

Antimony is a Mineral conſiſting of a Sulphur, like unto common Sulphur. It is found in many Places in *Tranſylvania*, *Hungary*, *France*, and *Germany*. You muſt chuſe that which is in long ſhining Needles, and not expect to find it of a reddiſh Colour, as many Authors adviſe; for in an hundred Weight of this Mineral, you'll hardly find one Piece of this Kind. Crude Antimony is uſed in ſudorific Decoctions, when we would diſſipate a Tumour by Tranſpiration: But great care muſt be had that no Acid enter into the Decoction; for then it would open its Body, and make it emetic. It is alſo dangerous to take it in Subſtance, becauſe it may be apt to meet with an Acid in the Stomach, that would open its Body, and thereby cauſe a vomiting.

Glaſs of Antimony is a Regulus of Antimony vitrified by long Fuſion. It is a ſtrong Vomit, and one of the moſt violent that is made of Antimony.

An emetic Syrup is prepared with the Glaſs of Antimony infuſed in the Juice of Quinces, or Lemons and Sugar.

Liver of Antimony is Antimony opened by Salt-peter and by Fire, which have made it half Glaſs, and given it a Liver Colour. To make the emetic Wine,

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you muſt infuſe an Ounce of this Liver of Antimony powdered in a Quart of White-wine, twenty four Hours, and ſo let it ſettle. The Doſe of this Wine is from half an Ounce to three Ounces.

Diaphoretic Antimony is an Antimony whoſe Sulphurs are fixed by Salt-peter, and are thereby hindred from working otherwiſe than by Sweat.

This Preparation is eſteemed good to procure Sweat, and to reſiſt Poyſon, and conſequently is good in malignant Fevers, the Small-pox, the Plague, and other contagious Diſeaſes. The Doſe is from ſix Grains to thirty in ſome proper Liquor.

Bezoar Mineral is an Antimony fixed by Spirit of Niter, and rendred ſudorific. It ſerves for the ſame Uſes as Diaphoretic Antimony. The Doſe is from ſix to twenty Grains in ſome proper Liquor.

Arſenick is a Mineral Body, conſiſting of much Sulphur, and ſome cauſtick Salts. There are three Sorts of it, the white, that keeps the Name of Arſenick, the yellow, called Auripigmentum, and the red called Sandaracha. The white is the ſtrongeſt of all: But none of them muſt be given inwardly, altho' ſeveral Perſons that have ventured to uſe the white, pretend to have cured with it divers Diſeaſes, and among others the Quartan Ague. They venture to give four Grains of it in a great deal of Water, and after that manner it will vomit like Antimony. But it is a dangerous Medicine, and therefore I think it ought not to be uſed inwardly. People ſometimes cover the Corns of their Feet with Arſenick in Powder, and it eats them to the Root without any Pain: But they muſt be ſure to cover the adjacent Fleſh with a Plaſter of Diapalma, after the ſame manner as when Cauſticks are applied.

Quick-lime is a Stone whoſe Moiſture the Fire has quite dried up, and brought into its Place a great many igneous Bodies. Theſe little Bodies cauſe the Ebul-

Ebullition, when Water has opened the Matter that kept them incloſed, and this Ebullition laſts until all the Parts of the Lime are dilated, and the fiery Particles ſet at Liberty. Theſe little igneous Bodies render the Lime corroſive, for the Stone is not at all ſo of it ſelf.

Phagadenick Water is made of Sublimate and Lime Water. Put a Pound of quick Lime into a large Earthen Pan, and quench it with ſeven or eight Pints of hot Water. After the Lime has infuſed five or ſix Hours, and is ſunk to the Bottom, pour off the Water by Inclination, and filtrate it. To each Pint of this Water are added fifteen or twenty Grains of Sublimate Corroſive in Powder, and the Water preſently turns yellow. They are ſtirred together a good while in a Glaſs or Marble Mortar; and this Water is uſed for cleanſing old Ulcers. It eats proud Fleſh, and is uſed for a Gangren, Spirit of Wine being added to it. Lime Water is uſed for a Diabetes, and often is applied outwardly to dry up Tumours.

Flints, as all other Stones, are made by different Salts, or by acid Liquors, which do penetrate and incorporate with Earth, which is an Alcaly, ſo that from their Mixture there does reſult a *Coagulum*, which by little and little hardens by means of the ſubterranean Heat, or petrifie by the Cold. The Tincture of Flints is ſaid to be a good Remedy to open Obſtructions, and for the Scurvy, and Hypochondriac Diſeaſes. The Doſe is from ten to thirty Drops in ſome proper Liquor.

Of common Salt there are three Sorts; the foſſile Salt, the fountain Salt, and the ſea Salt; the firſt is called *Sal Gemmæ*, by reaſon of its Tranſparency and Smoothneſs, like to a precious Stone: Whole Mountains are found full of it in *Poland* and other Places. The ſecond is drawn by the Evaporation of Waters of ſome Fountains; and the laſt from Sea Water by Criſtallization

ſtallization or Evaporation. Spirit of Salt is uſed in Juleps for ſuch as are ſubject to Gravel; it likewiſe cleanſes the Teeth.

Niter is a Salt impregnated with Abundance of Spirits out of the Air, which render it volatile: It is taken from among the Stones and Earth of old ruined Buildings, and in Cellars. *Sal Prunellæ* is commonly uſed in Phyſick, and is counted better than purified Saltpeter, becauſe the Sulphur is thought to have corrected it. It is given to cool, and to work by Urine in burning Fevers, Quinſies, Gonorrhea's, and other Diſeaſes that proceed from Heat and Obſtructions. The Doſe is from ten Grains to a Dram in Broath, or ſome other Liquor proper for the Diſeaſe. Spirit of Niter dulcified is good for the Collick and nephritick Pains, for hyſterick Diſeaſes, and for all Obſtructions. Its Doſe is from four to eight Drops in Broath or ſome other convenient Liquor.

Sal Armoniac is either natural or artificial. The natural is found in very hot Countries, as in many Parts of *Africa*, near the torrid Zone. It is found upon the Earth that has imbibed the Urine of Animals. The artificial Sal Armoniac is made at *Venice* and divers other Places, with five Parts of Urine, one Part of Sea Salt, and half a Part of Chimney Soot. Theſe three are boyled together, and reduced into a Maſs, which being put into ſubliming Pots over a gradual Fire, ſublimes into Salt, in the Form we commonly ſee Sal Armoniac. If you would purify Sal Armoniac, you muſt diſſolve it in a ſufficient Quantity of Water; filtrate the Diſſolution, and evaporate it, until it is dry, in a Glaſs Veſſel, you'll have a white Salt, which may be given from ſix to four and twenty Grains, in ſome convenient Liquor. It is an excellent Sudorific and Diuretic. It is good in malignant Fevers, and in quartan Agues, and to provoke the Courſes of Women; and is uſed in Waters for the Eyes.

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The volatile Spirit of Sal Armoniac, is a volatile Salt raiſed from Sal Armoniac, by the means of Quick Lime, and diſſolved into a Liquor. This Spirit is an excellent Remedy for all Diſeaſes that proceed from Obſtructions, and Corruption of Humours, ſuch as Malignant Fevers, the Falling-ſickneſs, Palſy, Plague, Small-pox, and the like: It drives by Perſpiration or by Urine. The Doſe is from ſix Drops to twenty, in Balm or Carduus Water.

Volatile Spirit of Sal Armoniac dulcified is a good Medicine for a Lethargy, the Palſy, the Scurvy, malignant Fevers, and hyſteric Maladies. It may be given inſtead of Spirit of Sal Armoniac, and is not ſo diſagreeable to the Taſte: It works by Sweat, or inſenſible Tranſpiration. The Doſe is from twelve Drops to fifty in ſome proper Liquor. It is likewiſe good outwardly applied for the Palſy, and for cold Pains.

Vitriol is a Mineral compounded of an acid Salt, and ſulphureous Earth. There are four Sorts of it, the blew, the white, the green, and the red. The blew is found near the Mines of Copper in *Hungary*, and the Iſle of *Cyprus*, from whence it is brought to us in fair Criſtals, which keep the Name of the Country, and are called Vitriol of *Hungary* or *Cyprus*. It partakes very much of the Nature of Copper, which renders it a little cauſtick. It is never uſed but in outward Applications, ſuch as Collyriums, or Waters for the Eyes, and to conſume proud Fleſh. White Vitriol is found near Fountains: It is moſt of all depurated from a Metallick Mixture. It may be taken inwardly to give a Vomit. It is likewiſe uſed in Collyriums. There are three Sorts of green Vitriol, the *German*, the *Engliſh*, and the *Roman*: That of *Germany* draws near unto the blew, and contains a little Copper; it is better than the reſt for the Preparation of Aqua Fortis. That of *England* partakes of Iron, and

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is proper to make the Spirit of Vitriol. The *Roman* is much like the *Engliſh* Vitriol, excepting that it is not ſo eaſy to diſſolve.

Red Vitriol was brought amongſt us a few Years ago out of *Germany*. It is called natural Colcothar, and is eſteemed to be a green Vitriol calcined by ſome ſubterranean Heat. It is the leaſt common of them all. It ſtops Blood, being applied to Hemorrhagies.

If you diſſolve a little white or green Vitriol in Water, and write with the Diſſolution, the writing will not be ſeen; but if you rub the Paper with a little Cotton dipt in the Decoction of Gauls, it will appear legible; then if you wet a little more Cotton dipt in Spirit of Vitriol, and paſs it gently over the Paper, the Ink will diſappear again: And yet at laſt, if you rub the Place with a little more Cotton dipt in Oyl of Tartar *per Deliquium*, it will again appear legible, but of a yellowiſh Colour. The Spirit of Vitriol is uſed for continual Fevers, and other Diſeaſes that are accompanied with a violent Heat. It is alſo mixed with Gargariſms. Salt of Vitriol is uſed to give a Vomit. The Doſe is from ten to thirty Grains. This is a very ſafe Vomit for Children and weakly Perſons.

Roch Allom is a very ſtyptic Mineral Salt, found in the Veins of the Earth, in many Places of *Europe*. It is taken up in great tranſparent Pieces. The beſt is that which is reddiſh, for the white contains fewer Spirits.

Allom is purified after the ſame manner as Vitriol. It is uſed to cleanſe the Teeth: It is a good Diuretic: A Dram of it is diſſolved in a Quart of Water, and a Glaſs of it is given now and then. The Diſtillation of Allom is uſed for Fevers and tertian Agues. The Doſe of the Spirit is from four to eight Drops. It is likewiſe good to cure the Aphthæ or little Chancres in the Mouth. Burnt Allom is uſed to eat carnous Excreſcences, or proud Fleſh. If a Dram of Allom be diſ-

diſſolved in ſix Ounces of the Flegm of the Diſtillation, you make an excellent Allom Water to cleanſe Wounds and Ulcers with. Surgeons are wont to calcine Allom in a Frying-pan, but the Iron dulls the greateſt Part of its Virtue, abſorbing its Spirits, wherein conſiſts the Corroſion of Allom.

Sulphur is a kind of Bitumen that is found in many Places in *Italy* and *Spain*. There is brought amongſt us both a natural and an artificial. The natural is grayiſh, and called *Sulphur vivum*. The other is yellow, and is nothing but the natural melted, purified from its groſſer Earth, and formed into Rolls, which we commonly uſe. Some think that Sulphur is a Vitriol ſublimed in the Earth, becauſe theſe Mixts are very often found near one another. That there is a great deal of Sulphur in the Maſs of Mineral Vitriol, and that the acid Spirits which are drawn from both are wholly alike. The Flower of Sulphur is uſed in Diſeaſes of the Lungs and Breaſt. The Doſe is from ten to thirty Grains, in Lozenges, or in an Electuary. It is alſo uſed in Oyntments for the Itch.

Magiſtery of Sulphur is alſo thought good for all Diſeaſes of the Lungs and Breaſt. The Doſe is from ſix to ſixteen Grains, in ſome convenient Liquor. Balſom of Sulphur is excellent for Ulcers of the Lungs and Breaſt. The Doſe is from one Drop to ſix in ſome proper Liquor. This Balſom may be reduced to the Conſiſtence of an Oyntment, by evaporating ſome Part of it, and it is thus uſed to cleanſe Wounds and Ulcers. A Balſom of Sulphur may be made with Oyl of Linſeed, for Wounds. Spirit of Sulphur, which is the acid Part of Sulphur turned into a Liquor with Fire, is put into Juleps to give them an agreeable Acidity, to qualifie the Heat of continual Fevers, and is a good Diuretic. Some preſcribe it for Diſeaſes of the Breaſt. But becauſe Acids are apt to cauſe a Cough, it may therefore do more Hurt than Good to that Part;

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for the Spirit is deprived of the Fat and Sulphureous Part of the Sulphur, and ſo has loſt the Virtue that accompanies Sulphur.

The Salt of Sulphur is a good Medicine to open Obſtructions, and to work by Urine, and ſometimes it works alſo by Stool. The Doſe is from ten Grains to two Scruples in Broath. It is diſſolved from half a Dram to Drams, in a Quart of Water, for a Drink in Fevers, and it is indeed good in continual Fevers, and in Tertians, and on all Occaſions, where there is need of calming too great a Motion of the Humours; becauſe the Acid ſerves to fix the volatile Salts or Sulphurs, which are moſt commonly the principal Cauſe of theſe Diſeaſes.

There is found in ſmall Currents, near the *Baltick* Sea, in the Dutchy of *Pruſſia*, a certain coagulated Bitumen, which is called Ambar. This Bitumen being ſoft and viſcous, ſeveral little Animals, ſuch as Flies and Ants, do ſtick to it, and are buried in it. Ambar is of different Colours, white, yellow, and black. The white is moſt eſteemed, tho' it be no better than the yellow. The black has the leaſt Virtue of all. Ambar ſerves to ſtop ſpitting of Blood, the Bloody-Flux, the immoderate Flux of the Hemorrhoids, the Courſes, and a Gonorrhea. The Doſe is from ten Grains to half a Dram. It is likewiſe uſed to ſtop a little the Violence of Catarrhs, by receiving the Fume of it at the Noſe. Tincture of Ambar is good for the Apoplexy, Palſy, Epilepſy, and for hyſteric Women. The Doſe is from ten Drops to a Dram in ſome proper Liquor. The white Oyl of Ambar, which ſwims above the Spirit and Flegm, after Diſtillation is given inwardly in hyſteric Diſtempers, for the Palſy, Apoplexy, and Epilepſy. The Doſe is from one Drop to four in ſome proper Liquor. It may be mixed with a little Yolk of an Egg, to diſſolve it eaſily in Water or Broath. The VVater and Spirit remain mixed confuſedly,

fuſedly, after Diſtillation; now to ſeparate them, you muſt pour this Mixture into an Earthen or Glaſs Diſh, and evaporate over a very gentle Fire two Thirds of it; that which remains is the Spirit of Ambar. Keep it in a Viol well ſtopt. It is an excellent Aperitive, and is given in the Jaundice, Stoppage of Urine, Ulcers of the Neck of the Bladder, and the Scurvy. The Doſe is from ten to four and twenty Drops in ſome proper Liquor. The black Oyl is uſed to chafe the Noſe and VVriſts of VVomen in hyſteric Fits. The volatile Salt of Ambar is a very good Aperitive, and may be given from eight Grains to ſixteen, in ſome opening Liquor, for the Jaundice, for Iſchuries, Ulcers in the Bladder, the Scurvy, Fits of the Mother; and upon all Occaſions, where there is any need of removing Obſtructions, and opening by way of Urine.

Ambar-greaſe is a Bitumen found in many Places on the Sea Shore, but eſpecially in the *Indies*. It grows hard in the Sun-beams. The beſt is that which is very gray and dry.

VVhen it is wet, it appears blackiſh. Men have thought that it is found no where elſe but in the oriental Seas, tho' ſome of it has been known to be found on the *Engliſh* Coaſt, and in ſeveral other Places in *Europe*. Moſt of it is brought from the Coaſt of *Melinda*. Ambar-greaſe is an excellent Corroborative, it is given in ſome Liquor, or in an Electuary to increaſe Seed. The Doſe is from one Grain to four. The Eſſence of Ambar-Greaſe is an Extract of the more Oyly Parts of Ambar-greaſe, Musk, and Civet in Spirit of VVine.

Take two Drams of good Ambar-greaſe, ſo much Sugar-candy, half a Dram of Musk, and two Grains of Civet; beat them ſmall together, and put the Mixture into a Viol, pour upon it four Ounces of Wine well alcoholized, ſtop the Viol cloſe, and ſet it in Digeſtion in Horſe-

Horse-Dung four Days; then taking it out, separate that which is clear while it is warm; for it will congeal when cold. This Essence works more strongly than Amber-grease in Substance. The Dose is from six to twelve Drops in some convenient Liquour.

Ambar-grease alone has scarce any Smell at all, but when its Parts are put in Motion by Fermentation, Sulphurs rise from it, which tickle the Sense of Smelling with a great deal of Pleasure. The Addition of Musk and Civet have a good Effect. As for the Sugar-candy, it serves only to separate the rest, that they may be the more easily powdered, and dissolved; for this Tincture is only a Dissolution of these Sulphureous Matters in Spirit of VVine.

Metallic Recrements are so called, because they are not perfect Metals, but participate of the Nature and Matter of Metals, and are separated by Fermentation in the Generation of Metals, from other perfect Metals.

Cobaltum is a Caustick, and is very volatile, and much mixed with a corrosive Arsenick, and therefore is counted poysonous. A Sky-colour is made of it. Some think a Medicine may be made of it for the Epilepsy; but the Use of it is very dangerous, by reason of the Arsenick.

Chalcitis, Misy, and Sory are Metallick Recrements, and belong to the Kinds of Vitriols, and may be properly called crude and impure Vitriol. Chalcitis is made of Sory, and Misy of Chalcitis. Misy is used for dying.

Cadmia Factitia is nothing else but the Soot of Brass, which sticks to the Furnace in the Fusion of the Metal. It is chiefly used in Surgery, for old and ill conditioned Ulcers; for being sprinkled upon them, it drys much, and destroys the corrupt Ferment of Ulcers, and so it incarns and cicatrizes. Cadmia being prepared by Fire, and extinguished, is called prepared Tutty, which is very good for Diseases of the Eyes, the Pow-

der of it being blown into the Eyes, for Inflammations and Ulcers. An Oyntment is commonly made of it, and uſed for the Eyes: But it is very proper to mix with it a Grain or two of Camphor, or Saffron, or the like.

Litharge is nothing elſe but the Lead, whereby Gold, in Fuſion, is depurated, which abſorbs all the vile Metals, when the Gold is in Fuſion. There are two Sorts of Litharge, *viz.* of Gold and of Silver. The Litharge of Gold is the moſt pure.

Plumbago is the impure Mine of Lead.

Pompholix is the fineſt Sparkles which ſticks to the uppermoſt Part of the Furnace in the Fuſion of Braſs.

Spodium is burnt Ivory.

Pompholix is much uſed in Surgery, and is much commended for Diſeaſes of the Eyes. The Oyntment called Diapompholigos is much commended for the Itch, and Puſtles in the Skin; and alſo for Inflammations in the Eyes.

Sperma Cæti is vulgarly reckoned amongſt Bitumens, but it is certainly taken out of the Heads of Whales in *Greenland*. It is an excellent Remedy for diſſolving coagulated Blood. It is uſed in Pleuriſies, Peripneumonia's, Bruiſes, and the like, to take off Inflammations, and the like. It is alſo excellent for Inflammations and Swellings of the Papes, and for the Gripes in Children, and the Collick in grown People, being diſſolved in ſome proper Water. It is alſo uſed for Diſeaſes in the Breaſt, and for a ſuffocative Catarrh.

Petreolum is a Fat and bituminous Matter flowing by degrees from Rocks and Stones. Some think that Petreolum or Oyl of Peter is a Liquor drawn from Ambar, by the means of ſubterranean Fires, which make a Deſtillation of it, and that Jet and Coals are the Remainders of it. This Opinion would have Probability enough in it; if the Places from whence this Sort of Drug comes, were not ſo far aſunder, the one from

from the other; for Petreolum is not commonly found any where, but in *Italy*, *Sicily*, and *Provence*: It is excellent for Diſeaſes of the Nerves, the Palſy, and Convulſions, either alone or with Oyl of Ambar, and is excellent for cold Diſeaſes of the Nerves. Ten or fifteen Drops of it being taken in Wine is a certain Cure for Obſtructions of the Courſes.

To conclude, Metals are counted ſeven, *viz.* Gold, Silver, Iron, Tin, Copper, Lead, and Quickſilver. This laſt is not malleable of it ſelf, as all the others are, but is ſo being mingled with others. And becauſe this is thought to be the Seed of Metals, it is numbred with the reſt. Aſtrologers have conceited, that there was ſo great an Affinity and Correſpondence between the ſeven Metals before named, and the ſeven Planets, that nothing happened to the one, but the other ſhared in it; and therefore they have given theſe ſeven Metals the Names of the ſeven Planets, each accordingly as they are governed, and ſo have called Gold the *Sun*, Silver the *Moon*, Iron, *Mars*, Quickſilver *Mercury*, Tin *Jupiter*, Copper *Venus*, and Lead *Saturn*. They have likewiſe fancied that each of theſe Planets has his Day apart to diſtribute liberally his Influence on our Hemiſphere, and ſo they tell us, if we work upon Silver on Monday, Iron on Tueſday, and ſo of the reſt, we ſhall attain our End much better than on other Days.

As to Minerals, whatſoever is found petrified in the Earth, or upon the Earth is called Mineral.

Petrification is made by a Coagulation of acid or ſalt Waters that are found in the Pores of the Earth. This Petrification differs according to the divers Diſpoſitions, or different Nature of the Earth, and according to the Time that Nature uſes in its Perfection.

The Qualities of Roots.

Name.	1 *Qual.*	3 *Qual.*
Acorns	hot, dry	attenuate, incide
Angelica	hot, dry	opens, attenuates
Asara Bacca	hot, dry	attenuates, incides
Asparagus	hot, dry	opens
Avens	hot, dry	discusses
Agarick.	hot, dry	attenuates, incides
Birthwort long, round	hot, dry	cleanses
Burdock	hot, dry	cleanses
Bistort	cold, dry	astringent
White Briony	hot, dry	attenuates, incides
Butterbur	hot, dry	attenuates, opens
Carline	hot, dry	attenuates
China	hot, dry	astringent
Comfry	dryes	thickens
Contra-yerva	hot, dry	attenuates
Costus bitter, sweet	hot, dry	attenuates, opens
Wild Cucumber	hot, dry	attenuates
Cyperus long, round	hot, dry	opens, attenuates
Celtic Spike	hot, dry	attenuates
Colts-foot		mollifies
Roman Doronicum	hot, dry	discusses
Dwarf Elder	hot, dry	digests
Sharp-pointed Dock		astringent
Eryngo	hot, dry	opens, discusses
Elecampane	hot, dry	cleansing, opening
Fern	hot, dry	opens
Filipendula	hot, dry	cleanses, opens
Fennel	hot, dry	discusses
Rock-Fennel	hot, dry	opens, attenuates
Fraxinella	hot, dry	attenuates, opens
Garlick	hot, dry	attenuates, digests

The Qualities of Roots.

3 *Qual.*	4 *Qual.*	5 *Q.*
forces Urine	*ſtomachick, ſplen. cephal.*	Alexi.
Sudorific, diuretic	*uterine, card. thorac.*	Alexi.
purges Choler, Flegm	*good for Liver, Spleen*	
diuretic		
opens Obſtructions	*g. for head, heart, ſtom.*	Alexi.
purges Flegm	*go. for jaundice, dropſie*	
forces Lochia, Urine, Courſes	*uterine, thoracick*	
expels Stone	*good for the Lungs*	
Sudorific, kills Worms		Alexi.
purges Serum, Flegm	*is uterine*	
forces Urine, Sweat, Courſes	*good for the breaſt*	Alexi.
Sudorific	*Cardiack*	Alexi.
Diaphoretic, Diuretic	*ſtomachic, cephalic*	
is vulnerary, ſtops blood	*pectoral*	
Sudorific, kills Worms		Alexi.
fo. Courſes, Urine, ki. Worms	*ſtomachic, hepatic*	Alexi.
moves the Courſes		
moves the Courſes, Urine	*good for reins, breaſt*	Alexi.
forces Urine	*cephalic*	
pectoral	*good for the lungs*	Alexi.
Zedoary is uſed inſtead of it		
purges Water		
cures the Itch		
good for Diſeaſes of the Reins	*is ſtomachic*	Alexi.
forces Urine, Courſes, Sweat	*good for ſtomach, lungs*	Alexi.
kills Worms	*ſplenetick*	
diuretic, good for the Jaundice	*g. f. reins, bladder, womb*	
Diuretic	*cephalic*	
kills Worms	*cephalic, uterine*	Alexi.
forces Urine, Gravel	*good for lungs, ſpleen*	
g. for Cholic, Stone, Worms, Cough, Plague		Alexi.

Name.	1 *Qual.*	2 *Qual.*
Gentian	hot, dry	opens, attenuates
Graſs	cold, dry	opens
Five-leav'd Graſs		aſtringent
Ginger	hot, dry	opens, incides
Galingal leſſer	hot, dry	incides, opens
Hounds-tongue	cold, moiſt	thickens
Horſe-tail	cold, dry	cleanſes
Hellebore white	hot, dry	cleanſes
Hellebore black	hot, dry	opens, diſcuſſes
Hermodactils	hot, dry	cleanſes
Jalap	hot, dry	
Jews-ear	cold, dry	g. for diſ. of the Eyes, purges Serum
Kneeholm	hot, dry	incides, attenuates
Liquoriſh	moiſt	mollifies, ſmoothens
Lovage	hot, dry	incides, opens
White Lillies	hot, dry	attenuates
Water Lillies	cold, dry	aſtringent
Marſh mallows	hot, dry	mollifies, looſens
Maſterwort	hot, dry	attenuates, opens
Mandrake	cold, dry	mollifies
Mechoacan	hot, dry	
Meu	hot, dry	attenuates, opens
Madder	hot, dry	opens, diſcuſſes
Florentine Orris	hot, dry	incides, attenuates
Onions	hot, dry	incides, cleanſes
Oſmund Royal	hot, dry	opens
Yellow wild Orris	hot, dry	aſtringent
Peony	hot, dry	ſubaſtringent
Parſly	hot, dry	attenuates, opens
Phu	hot, dry	attenuates, opens
Polipody of the Oak	hot, dry	incides, digeſts
Pellitory of Spain	hot, dry	attenuates, incides
Reſtharrow	hot, dry	aſtringent, inciding

3 Qual.	4 Qual.	5 Q.
& cures the Bite of a mad Dog	is hepatic, splenetic	Alexi.
forces Urine, kills Worms	good for Bladder, Spleen	
Vulnerary	hepatic, splenetic	
resists Putrefaction	stomachic, thoracic	
	cephalic, stomachic	
is narcotic		
g. for an old Cough, difficulty of breathing, dis. of the reins	forces Urine	
kills Mice	errhine	
purges Melancholy, forces Courses and Hemorrhoids		
purges Flegm		
purges serum	Panacea for a Dropsie	
diuretic		
expels Gravel	g. for the lun. liv. blad.	
forces Urine, Courses	hepatic, splenetic	Alexi.
good for Burns		
stops uterine Fluxes		
	thoracic	Alexi.
forces Sweat, Courses, Urine	cephal. stomach. thora.	Alexi.
narcotic		
purges Flegm, Choler, Serum		
forces Urine, Courses	cephalic, hepatic	Alexi.
forces Urine, Courses		
forces Courses, Urine	pectoral	Alexi.
forces Urine, Courses, Sweat		Alexi.
	splenetic	
stops Courses		
good for Convulsions	uterine, cephalic	
diuretick	hepatic	
forces Urine, Sweat, Courses	hepatic, splen. uterine	Alexi.
purges Melancholy	good for the Gout	
sudorific, errhine	good for the Lungs	
diuretic, lithontriptic	good for Reins & Blad.	

Name.	1 *Qual.*	2 *Qual.*
Rhodia Radix	hot, dry	attenuates, opens
Radiſh	hot, dry	cleanſes, opens
Rhubarb	hot, dry	toaſted is aſtringent
Rhaphonticum	hot, dry	aſtringent
Smallage	hot, dry	opens
Succory	cold, dry	cleanſes
Sow-Bread	hot, dry	incides, opens
Spurge greater & leſſer	hot, dry	cleanſes
Burnet Saxifrage	hot, dry	attenuates, opens
Saxifrage	hot, dry	opens
Spaniſh Scorzonera	hot, moiſt	opens Obſtructions
Squills	hot, dry	attenuates, incides
Solomon's Seal		cleanſes
Spikenard	hot, dry,	attenuates
Sarſa-parilla	hot, dry	attenuates
Turmerick	hot, dry	cleanſes
Tormentil	cold, dry	aſtringent
Turbith	hot, dry	
Vincetoxicum	hot, dry	attenuates, opens
Wake-Robin	hot, dry	incides
Winter-green	cold, dry	aſtringent
Zedoary	hot, dry	incides, diſcuſſes

Barks.

Name.	1 *Qual.*	2 *Qual.*
Aſh	cold, dry	attenuates
Acorn Cups	cold, dry	aſtringent
Woody Caſſia	hot, dry	opens, diſcuſſes
Cinnamon	hot, dry	attenuates, opens
Citron	hot, dry	opens, attenuates
Cheſnut	cold, dry	aſtringent
Roots of Capers	hot, dry	opens, incides
the Inner of Elder	hot, dry	attenuates, diſcuſſes
Mace	hot, dry	ſubaſtringent

3 Qual.	4 Qual.	5 Q.
moves the Courſes.	is cephalic	
forces Urine	hepatic, ſplenetic	
purges Choler, Courſes, Urine		
	ſtomachic, ſplenetic	
breaks the Stone	hepatic, uterine, ſplenetic	Alexi.
qualifies Choler	ſtomachic, hepatic	
errhin, expels the dead Child		
purges Flegm, Choler		
move Cou. Urine, lithontriptic	g. for lungs, liver, reins	Alexi.
forces Urine, Courſes, Gravel	good for the Bladder	
g. for the biting of a mad Dog		Alexi.
diuretic	g. for the Lun. hep. ſplen.	
cures Ulcers	good for the Face	
moves Urine, Courſes	nephritic, ſtomachic.	Alexi.
ſudorific	good for the Pox.	
forces Urine, Courſes	uterine	
vulnerary		Alexi.
purges Flegm		
forces Sweat, Courſes		Alexi.
good for an Aſthma	thoracic	Alexi.
vulnerary	good for the Lungs	
cures venomous Bites		Alexi.

Barks.

3 Qual.	4 Qual.	5 Q.
diuretic, lithontriptic	g. for the Spleen & Pox	
haſtens Delivery	cephalic	Alexi.
reſiſts Putrefaction	cephalic, cardiac, uterine	Alexi.
diaphoretic	cardiac	Alexi.
ſtops the Belly		
	ſplenetic	
moves the Courſes, Urine, Belly		
	cephalic, uterine	

Oran-

Name.	1 *Qual.*	2 *Qual.*
Oranges	hot, dry	attenuate, open
Oak	cold, dry	aſtringent
Pomgranats	cold, dry	aſtringent
Tamariſk	hot, dry	attenuates, opens

Woods.

Names.	1 *Qual.*	2 *Qual.*
Aloes	hot, dry	aſtringent
Aſpalathum	hot, dry	aſtringent
Colubrinum	hot, dry	cleanſing
Guiacum	hot, dry	opens
Juniper	hot, dry	attenuates
Miſletoe	hot, dry	mollifies
Nephriticum	hot, dry	opens
Rhodium	hot, dry	attenuates
the three Sanders	dry	open
Saſſafras	hot, dry	attenuates, opens

Herbs.

Names.	1 *Qual.*	2 *Qual.*
Agrimony	hot, dry	opens
Water Agrimony	hot, dry	opens
Aſſara-bacca	hot, dry	attenuates
Arſmart	hot, dry	
Beet	hot, dry	cleanſes
Bettony	hot, dry	attenuates, opens
Red Blite	cold, moiſt	looſens
Bears-Breech	moiſt	mollifies
Balm	hot, dry	attenuates, incides
Baſil	hot, dry	diſcuſſes
Burnet	hot, dry	attenuates
Male Brooklime	hot, dry	cleanſes

3 *Qual.*	4 *Qual.*	5 *Q.*
good for the Cholic	*cardiac, cephalic*	Alexi.
good for the Toothach		
diuretic	*ſplenetic*	

Woods.

3 *Qual:*	4 *Qual.*	5 *Q.*
kills Worms	*cardiac, uterine*	Alexi.
good for ſpitting Blood		
purges Choler, Flegm	*good for Fevers*	Alexi.
g. for Dropſy, Palſy, ſudorific	*g. for the Falling-ſickn.*	
ſudorific		
good for the Epilepſy		
forces Urine	*good for the Reins*	
	cardiac, cephalic	
cures a hectic Fever	*cardiac, hepatic*	
ſud. neph. g. for an Aſthma		

Herbs.

3 *Qual.*	4 *Qual.*
g. for a Cachexy & Wounds	*ſplenetic, hepatic*
vulnerary, forces Urine, Cour.	*hepatic, ſplenatic*
diuretic	*expels Cour. dead Child*
vulnerary	
purges Head and Belly	
vulnerary, diuretic	*cephalic, ſplenetic, uterine*
good for the Head	
good for Burns	
forces the Courſes	*cephalic, cardiac*
forces Urine, Courſes	
ſudorific, lithontriptic	
vulnerary	*g for the bit. of a m. Dog*

Calc-

Name.	1 Qual.	2 Qual.
Caleminth	hot, dry	cleanſes powerfully
Carduus Benedictus	hot, dry	opens, attenuates
Leſſer Centory	hot, dry	cleanſes
Chervile	hot, dry	attenuates
Camomile	hot, dry	mollifies
greater Celandine	hot, dry	opens, penetrates
leſſer Celandine	hot, dry	cleanſes
Clary	hot, dry	cleanſes, attenuates
Colts-foot		mollifies
Tops of Dill	hot, dry	ripens
Dodder	hot, dry	cleanſes much
Cretick Dittany	hot, dry	attenuates, cleanſes
Dodder of Thyme	hot, dry	
Endive	cold, dry	opens
Eyebright	hot, dry	binding
Elder Leaves	hot, dry	mollifies
Fennel	hot, dry	attenuates
Fumitory	hot, dry	attenuates
Feverfew	hot, dry	attenuates, incides
Germander	hot, dry	incides, attenuates
Ground Pine	hot, dry	incides, opens
Goats Rue		
Groundſel	cold, dry	digeſts, conſolidates
Golden-Rod	hot, dry	aſtringent
Horſe-tail	cold, dry	aſtringent
Hemlock	cold, moiſt	mollifies
Hyſop	hot, dry	opens, attenuates
Hops	hot, dry	attenuates, diſcuſſes
Horehound	hot, dry	opens, cleanſes
Harts-tongue	cold, dry	attenuates
Ground-Ivy	hot, dry	attenuates, opens
Ivy	cold, dry	aſtringent
Knot-graſs	cold, dry	binds
Ladies Mantle		aſtringent
Ladies-bed-ſtraw	dry	cleanſes
Lettice	cold, moiſt	thickens

3 Qual.	4 Qual.	5 Q.
	g. for the womb & nerves	
sudorific, diuretic	cardiack	Alexi.
vulnerary	hepatic, splenetic	
cure the Chol. forces Cour. diu.	cures the Lientery	
diuretic		
good for the Eyes		
g. for the Scurvy, K. Evil, Piles		
narcotic	g. for the Breast & Eyes	
pectoral		
breeds Milk		
	splenetic, hepatic	
hastens Delivery	uterine, anodyne	Alexi.
purges Melancholy		
diuretic		
	good for the Eyes	
pro. Sweat, eva. Serum, forc. C.		
moves Urine, Courses	g. for the Stom. Eyes & Br.	
purges Serum, Choler	splenetic, hepatic	
purges Choler, Flegm	uterine	
sudo. diur. g. for the Dropsie	splen. hep. g. for the Gout	
diuretic, moves the Courses	g. for the Nerves, Gout	
cures the bit. of Vip. kills Wor.	cures Epilepsy, Plague	
forces Urine, vulnerary		
vulnerary, lithontriptic	good for a Dropsy	
g. for an old Coug. pro. Uri. vul.		
of a poysonous Quality		
pectoral, good for a Plewrisie	hepatic	
anodyne		
provokes Courses	g. for Jaundice, Eyes, Br.	
vulnerary	splenetic, hepatic	
forces Gravel, Courses	pectoral	
anodyne		
vulnerary		
vulnerary		
vulnerary, cures spitting Blood		
provokes Sleep	stomachic	

Law-

Name.	1 Qual.	2 Qual.
Lawrel	hot, dry	mollifies, diſcuſſes
Lentisk	hot, dry	aſtringent
Lovage	hot, dry	attenuates
White Lilly	hot, dry	attenuates
Lungwort	cold, dry	aſtringent
Marſh-Mallows	hot, dry	mollify, looſen
White Maiden-hair	dry	digeſts, diſcuſſes
Mugwort	hot, dry	cleanſes
Maiden-hair		cleanſes
Hedg Muſtard	hot, dry	attenuates
Marjoram	hot, dry	attenuates
Mallows		mollifies
Melilot		mollifies
horſe, garden, water Mint	hot, dry	attenuates
Mercury	hot, dry	cleanſes
Millfoil	hot, dry	aſtringent
Myrtle	cold, dry	aſtringent
Mouſe-ear	hot, dry	binding
Mullin	hot, dry	mollifies
Nep	hot, dry	attenuates
Orach	cold, moiſt	diſcuſſes
Oak of Jeruſalem	hot, dry	attenuates
Oak Moſs	cold, dry	aſtringent
Oak Leaves	cold, dry	aſtringent
Pellitory of the Wall	cold, moiſt	mollifies, cleanſes
Parſly	hot, dry	attenuates
Purſlain	cold, dry	thickening
Plantain	cold, dry	thickens
Mountain Poly	hot, dry	attenuates
Penny Royal	hot, dry	attenuates, incides
Periwinkle	hot, dry	aſtringent
Roſemary	hot, dry	incides
Rue	hot, dry	attenuates, incides
Male-Sothernwood	hot, dry	cleanſes, opens
Sorrel	cold, moiſt	aſtringent
Shepherds-purſe	cold, dry	aſtringent

3 *Qual.*	4 *Qual.*	5 *Q.*
forces the Courſes, Gravel	*cephalic*	Alexi.
ſtops Blood, Belly, Womb		
forces Urine, Courſes		
good for Burns		
ſtops ſpitting of Blood	*g. for the Lun. Brain, He.*	
anodyne	*g. for the Bladder, Breaſt*	
	g. for the Lungs, Reins	
forces Courſes, Lochia	*uterine*	
	pectoral	
good for Hoarſneſs	*pectoral*	
Errhine	*cephalic*	
good for Burns, Cholic	*anodyne*	
anodyne	*good for the Eyes*	
move the Cou. diſſol. coag. Milk	*uterine*	
moves Belly, Courſes	*errhine*	
ſtops Fluxes		
diuretic		
cures Heart-burning	*cure Fluxes of the Bel. Co.*	
anodyne	*thoracic*	
move the Courſes	*uterine*	
looſens the Belly	*good for the Jaundice.*	
reſiſts Putrefaction	*pectoral*	
ſtops the Courſes		
forces Urine, Gravel	*nephritic*	
forces Courſes, Urine		
ſtops Fluxes	*good for the Reins*	
cures uterine Fluxes		
forces Urine		
moves the Courſes		
vulnerary		Alexi.
good for the Jaundice	*cephalic*	Alexi.
moves Courſes, Urine	*cephalic*	
kills Worms, forces Urine	*uterine*	
	good for choleric Fevers	Alexi.
vulnerary		

Scur-

Names.	1 Qual.	2 Qual.
Scurvy-graſs	hot, dry	opens
Succory	cold, dry	opens
Strawberry	cold, dry	aſtringent
St. John's-wort	hot, dry	attentates
Self-heal	hot, dry	cleanſes
Savine	hot, dry	attenuates, incides
Sage	hot, dry	aſtringent
Sanicle	hot, dry	aſtringent
Savory	hot, dry	opens, attenuates
Scabious	hot, dry	cleanſes
Seal of the bleſſed Virgin	hot, dry	incides
Scolopendrium	hot, dry	cleanſes
Scordium	hot, dry	attenuates
Sena	hot, dry	cleanſes
Soldanella	hot, dry	opens
Speedwell	hot, dry	aſtringent
Maries Thiſtle	hot, dry	incides
Toads Flax	hot, dry	cleanſes
Tobacco	hot, dry	cleanſes, incides
Thyme	hot, dry	incides
Mother Thyme	hot, dry	attenuates, opens
Violets	cold, moiſt	emollient
Vervain	hot, dry	aſtringent
com. & roman Wormwood	hot, dry	reſolves
Winter-green	cold, dry	aſtringent
Willow Leaves	cold, dry	aſtringent

Flowers.

Name.	1 Qual.	2 Qual.
Balauſtins	cold, dry	aſtringent
Bettony	hot, dry	attenuates, opens
Borage	hot, moiſt	emollient
Bugloſs	hot. moiſt	emollient
Blew-bottle	hot, dry	opens

3 Qual.	4 Qual.	5 Q.
diaphoretic, antiscorbutic	splenetic	
diuretic		
forces Urine, Courses	heals Ulcers	
diuretic, vulnerary		
consolidates		
expels Child, Courses		
diuretic, moves Courses	cephalic	Alexi.
vulnerary	cephalic	Alexi.
sudorific	good for the Lungs	Alexi.
for. Uri. Cour. Gravel, Thorac.		
breaks the Stone	splenetic, cephalic	
moves Sweat, Urine, Courses		
purges Melancholy		
purges Water upwards & downw.		
vulnerary, sudorific	pectoral	
forces Urine, Courses, Sweat		
moves the Belly		
moves sneezing, narcotic	good for the Head	
moves Urine	cephalic	
forces Urine, Courses	cephalic, uterine, stomac.	
	cardiac	
vulnerary, lithontriptic	hepatic, splenetic	
kills Worms	stomachic, hepatic	
vulnerary		
disposes to Sleep		

Flowers.

3 Qual.	4 Qual.	5 Q.
vulnerary	cephalic	
prepares Choler	cardiac	Alexi.
prepares Choler	cardiac	
good for Dropsy, Jaundice	cardiac	

Name.	1 *Qual.*	2 *Qual.*
Broom	hot, dry	opens
Capers	hot, dry	reſiſts Putrefaction
Camomile	hot, dry	emollient
greater Celendine	hot, dry	attenuates, incides
Colts-foot		emollient
Elder	hot, moiſt	emollient
Gilly-flowers	hot, dry	emollient
Hops	hot, dry	incides
Lavender	hot, dry	attenuates, incides
White Lillies	hot, dry	attenuates
Lillie of the Vallies	hot, dry	attenuates
White water Lillies	cold, moiſt	emollient
Lime	hot, dry	diſcuſſes
Marygolds	hot, dry	opens, diſcuſſes
Tree Mallows	cold, moiſt	emollient
Mellilot	hot, dry	emollient
Mullin	hot, dry	emollient
Peony	hot, dry	ſubaſtringent
Red Poppy	cold, moiſt	emollient
Black Poplar	hot, dry	cleanſing
Primroſe	hot, dry	incides
Roſemary	hot, dry	incides
Roſes white and red	cold, dry	aſtringent
Damask Roſes	hot, dry	looſen
Saffron	hot, dry	opens, mollifies
Sage	hot, dry	ſubaſtringent
Schenanth	hot, dry	diſcuſſes
Stœchas	hot, dry	cleanſes, attenuates
Violets	cold, moiſt	emollient
Wall-flowers	hot, dry	cleanſes, attenuates

3 Qual.	4 Qual.	5 Q.
expels Gravel, Worms, Urine	good for liver, Spleen	
forces courſes, urine	ſplenetic, hepatic	
g. for fainted palp. of the heart	g. for head, heart, nerves	Alexi.
purges Choler	good for the Eyes	
ſudorific, anodyne		
cures Itch, Jaundice		
forces Urine, Courſes	cephalic, nervine	
haſtens Delivery		
good for fainting	cephalic	
ſtops a Flux		
good for the Epilepſy	cephalic	
exp. courſes, ſmall pox, meaſles	cardiac	Alexi.
good for Epilepſy, Night-mare	uterine, cephalic	
hypnotic		
anodyne		
anodyne, g. for Apoplexy, Epile.	palſy	
good for the Apoplexy	cephalic	
	cephalic	
purge Choler		
anodyne, haſtens delivery	cardiac, pectoral	Alexi.
diuretic	cephalic	
	cephalic	
forces urine, courſes	cephalic, nervine	
good for the Epilepſy	cardiac	
expels dead child, courſes	cardiac, uterine	

Seeds.

Name.	1 *Qual.*	2 *Qual.*
Aniſe	hot, dry	attenuates, diſcuſſes
Aſparagus	hot, dry	opens
Aſh	hot, dry	attenuates
Biſhopſ-weed	hot, dry	incides
Burdock	cold, dry	cleanſes
Berberries	cold, dry	aſtringent
Broom	hot, dry	attenuates, opens
whole & cleans'd Barly	cold, dry	opens, cleanſes
Baſil	hot, dry	digeſts, reſolves
Chaſt Tree	hot, dry	attenuates, diſcuſſes
Columbine	hot, dry	
Cabbage	hot, dry	looſens
Cardemoms leſſer	hot, dry	attenuates
Carduus benedictus	hot, dry	incides, opens
Caraways	hot, dry	attenuates, diſcuſſes
Citron	hot, dry	attenuates, cleanſes
Citruls	cold, moiſt	opens
Coriander	hot, dry	aſtringent
Cubebs	hot, dry	attenuates, diſcuſſes
Cucumber	cold, moiſt	cleanſes, opens
Cummin	hot, dry	attenuates, digeſts
Cherrie Kernels	cold, dry	
Dill	hot, dry	ripens, digeſts
Date Stones	cold, dry	forces Gravel
critic & common Daucus	hot, dry	opens, incides
Endive	cold, dry	cleanſing
Elder	hot, dry	
common & ſweet Fennel	hot, dry	diſcuſſes
Fenugreek	hot, dry	emollient, digeſts
Fumitory	hot, dry	attenuates
Flax	hot, dry	mollifies, cleanſes
Gourds	cold, moiſt	emollient

Seeds.

3 *Qual.*	4 *Qual.*	5. *Q.*
diuretic, breeds milk & ſeed pectoral		Alexi.
diuretic		
forces urine, water	*ſtimulates venery*	
good for the Cholic	*uterine*	
expels Gravel		
expels Gravel, looſens the Belly	*good for ſpleen, Reins*	
diuretic		
moves the courſes	*cephalic*	
forces urine, courſes		
cu.ulc. of the mouth, jaund.	*haſtens delivery*	Alexi.
kills Worms		
helps concoction g. for a cough.	*good for Head ſtomach*	Alexi.
ſudorific	*cardiac*	Alexi.
diuretic	*ſtomachic*	
kills worms		Alexi.
diuretic	*go. for the reins, bladder*	
kills worms	*ſtomachic*	
comforts the Memory	*cephalic, pectoral*	
forces urine, gravel		
carminative	*ſtops hemorrhoids*	
Breaks the Stone		Alexi.
increaſes Milk, Seed	*good for ſtone, womb*	
		Alexi.
diuretic, haſtens Delivery	*good for the womb*	
diuretic		
purges Serum		
diuretic, forces courſes	*g. for ſtom. breaſt, Eyes*	Alexi.
prepares Melancholy		
anodyne,		

Name.	1 Qual.	2 Qual.
Grains of Paradiſe	hot, dry	attenuate
Garden Creſſes	hot, dry	open, cleanſe
white Henbane	cold, dry	emollient
Hemp	cold, dry	
St. John's-wort	hot, dry	digeſts
Knecholm	hot, dry	attenuates
Lettice	cold, dry	thickens
Lentile		looſening
Lovage	hot, dry	opens, incides
Lupins	hot, dry	cleanſe, open
Marſh-mallows	hot, dry	emollient
Mallows	hot, moiſt	emollient
Melons	cold, moiſt	open, cleanſe
Medlars	hot, dry	aſtringent
Millfoyl	hot, dry	cleanſes
common Millfoyl	cold, dry	aſtringent
Muſtard	hot, dry	incides, attenuates
Nettle	hot, dry	incides, opens
Nigella	hot, dry	attenuates, opens
Orach	cold, moiſt	looſens, diſcuſſes
Peach Kernels	hot, dry	cleanſe
Pine Kernels	moiſt	emollient
Peoney	hot, dry	ſubaſtringent
white and black Poppys	cold, moiſt	thicken
Macedonian & com. Par-	hot, dry	attenuates, opens
Plantain (ſly	cold, dry	thickens, cleanſes
Purſlain	cold, dry	aſtringent
Quinces	cold, moiſt	emollient
Rocket	hot, dry	cleanſes
Rhadiſh	hot, dry	incides, attenuates
Rue	hot, dry	incides
Sorrel	cold, dry	opens
Smallage	hot, dry	opens
Saxifrage	hot, dry	opens
Staves acre	hot, dry	cleanſes
Sumach	cold, dry	aſtringent

3 Qual.	4 Qual.	5 Q.
good for Concoction,	Cholic	cephalic, pectoral
force urine		good for the ſpleen
anodyne,	good for ſpitting blood	
leſſen Seed		
diuretic, forces courſes		vulnerary
diuretic		
diſpoſes to ſleep		good for ſtomach, urine
good for the plague, ſmall-pox		
forces urine, courſes,	ſweat	hepatic, ſplenetic
expel urine, cour. Birth,	worms	
		good for bladder, breaſt
hepatic		
diuretic, lithontriptic		
expels urine, gravel,	birth	
moves urine,	ſweat	
forces urine, courſes		
diuretic, lithontriptic		thoracic
breeds milk, forces urine		uterine
purges upwards & downwards		good for the Jaundice
lithontriptic, diuretic		
g. for conſumption,	ſtrangury	good for ſtomach, breaſt
good for the Epilepſy		uterine, cephalic
forces urine, courſes		g. for liver, ſpleen, reins
vulnerary		
kills worms		
good for burns		
diuretic, breeds milk,	ſeed	
vomits		
forces urine, courſes,	birth	cephalic Alexi.
reſiſts Putrefaction		Alexi.
diuretic		
diuretic		
moves the Belly,	maſticatory	

Name.	1 *Qual.*	2 *Qual.*
Baſtard Saffron	hot, dry	incides, attenuates
Tanſy	hot, dry	attenuates
Thlaſpy	hot, dry	cleanſes
Red Vetch.	hot, dry	emollient, cleanſing

Fruits.

Name.	1 *Qual.*	2 *Qual.*
Almonds bitter	hot, dry	cleanſe, attenuate
Almonds ſweet		emollient
Anacardiums	hot, dry	
Acorns	cold, dry	aſtringent
Berberries	cold, dry	aſtringent
Buckthorn Berries	hot, dry	cleanſe
Winter Cherries	cold, dry	
Watry Cherries	cold, moiſt	emollient
ſweet Cherries	hot, moiſt	mollify
acid Cherries	cold, dry	aſtringent
rough Cherries	cold, dry	aſtringent
preſerv'd Cherries	cold, dry	aſtringent
Cheſnut	hot, dry	thickens
Cloves	hot, dry	diſcuſs
Caſſia Fiſtula	hot, moiſt	emollient, lenitive
Coloquintida	hot, dry	
Currants	cold, dry	attenuate, incide
Dates	hot, dry	aſtringent
Elder Berries	hot, dry	emollient
Figs	hot, moiſt	emollient
Galls	cold, dry	aſtringent
Ivy Berries	hot, dry	
Juniper berries	hot, dry	diſcuſs, incide
Jujubes	cold, moiſt	emollent
Kerms	hot, dry	aſtringent
Lawrel Berries	hot, dry	emollient
Mezereon Berries	hot, dry	draw

3 Qual.	4 Qual.	5 Q.
purges Serum	good for dropsy, cholic	
moves urine	kills Worms	
forces urine		
diuretic, go. for the Jaundice	malignant ulcers	Alexi.

Fruits.

3 Qual.	4 Qual.	5 Q.
diuretic		
anodyne		
quicken memory	cephalic	
good for a looseness	good for stomach, liver	
purge viscid Flegm		
diuretic, lithontriptic	good for reins, bladder	
loosen the Belly		
good for apoplexy, epilepsy		
quench thirst	stomachic	
corroborate		
g. for Fevers, Green-sickness		
stops vomiting, looseness		
good for fainting	cephalic, cardi. stomac.	Alexi.
purges choler, serum	g. for bre. lungs, rei. blad.	
purges flegm, serum, melanchol.	good for a Dropsy	
cool in a Fever		
stops fluxes of the belly	good for reins, bladder	
sudorific		Alexi.
ripen, purge the reins	g. for lungs, small-pox	Alexi.
stop a Gonorrhea		
purge upward and downward		
move urine, sweat	ischidiac	Alexi.
g. for a pleurisy, quinsy, cough	good for the lungs	
	cardiac	
move the Courses	cephalic	
purge choler, g. for a Dropsy	visicatory, caustic	

Myr-

Name.	1 Qual.	2 Qual.
Myrtle Berries	cold, dry	aſtringent
unripe Medlars	cold, dry	aſtringent
Bellyrick Myrobalans	cold, dry	aſtringent in ſubſtance
Chebulæ Myrobalans	cold, dry	aſtringent in ſubſtance
Emblicæ Myrobalans	cold, dry	aſtringent in ſubſtance
Cytron Myrobalans	cold, dry	aſtringent in ſubſtance
Indian Myrobalans	cold, dry	aſtringent in ſubſtance
Cyprus Nuts	hot, dry	aſtringent
Nutmegs	hot, dry	aſtringent
Piſtach Nuts	hot, moiſt	attenuate, open
Poppy Heads	cold, moiſt	thicken
Pomgranates acid	cold, dry	aſtringent
Pomgranates ſweet	cold, dry	digeſt
vinous Pomgranates	cold, dry	attenuate
Pepper white, black, long	hot, dry	attenuates, reſolves
Prunes rough, acid	cold, dry	aſtringent
Prunes ſweet	cold, moiſt	emollient
Quinces	cold, dry	emollient
Raiſins	hot, moiſt	emollient
Strawberries	cold, moiſt	
Sebeſtins	moiſt	emollient
Tamarinds	cold, dry	aſtringent
Freſh Wallnuts	hot, dry	emollient

Meals.

Name.	1 Qual.	2 Qual.
Barly	cold, dry	cleanſes
Beans	cold, dry	cleanſes
greater Comfry		thickens !
Fenugreek	hot, dry	emollient
Flax Seeds		cleanſe, mollifie
Lupins	hot, dry	open, cleanſe
Marſh-Mallow Roots	hot, moiſt	emollient
Wheat	hot, moiſt	emollient

3 Qual.	4 Qual.	5 Q.
good for the ſtone	heals wounds	
purge flegm		
purge flegm in infuſion		
purge flegm in infuſion		
purge choler in infuſion		
purge melancholy		
g. for rupture, to breed callus		
g. for palpitat. of heart, hickops	cephal. ſtomach. uterine	
pectoral		
hypnotic		
purge choler		
good for a cough		
	cephalic	
good for the cholic	ſtomachic	
looſens the belly	hurt the ſtomach	
good for ſtomach, lungs, liver		
	good for the liver	
	ſplenetic, nephritic	
looſen the belly, kill worms	purge the reins	
purge choler		
cures ulcers of the mouth		Alexi.

Meals.

3 Qual.	4 Qual.	5 Q.
ripens		
clears the face from ſpots		
ripens		
ripen		
ſuppurates, anodyne		Li-

Liquid Juices.

Name.	1 Qual.	2 Qual.
Berberries	cold, moiſt	aſtringent
Fumitory	hot, dry	attenuates
unripe Grapes	cold, dry	attenuates
Lemons	cold, dry	attenuate
freſh Oyl	hot, moiſt	emollient
old Oyl	hot, dry	digeſts, cleanſes
waſhed Oyl	cold, dry	aſtringent
omphac. Oyl	cold, dry	aſtringent
Oyl of pale Roſes	hot, dry	
Oyl of Pomgranates	cold, dry	aſtringent
Quinces	cold, moiſt	aſtringent

Thickened Juices.

Name.	1 Qual.	2 Qual.
true Acacia	cold, dry	thickening
Aloes, hepat. ſuccotrine	hot, dry	aſtringent, cleanſing
Ammoniacum	hot, dry	emollient, attenuates
Aſſa fetida	hot, dry	incides
Water Agrimony	hot, dry	attenuates, opens
Amber, white, red	hot, dry	aſtringent
Amber liquid	hot, moiſt	reſolvent, emollient
Peruvian Balſom white,	hot, dry	diſcuſſes, mollifies
Balſom Copiei { black	hot, dry	emollient
Bdellium	hot, dry	digeſts, attenuates
Benzien	hot, dry	incides, attenuates
Judaic Bitumen	hot, dry	diſſipates
Camphor	cold, dry	diſſipates
Colophony	hot, dry	emollient
Dragons blood	cold, dry	aſtringent
Elaterium	hot, dry	incides
Euphorbium	hot, dry	cauſtic

Liquid Juices.

3 Qual.	4 Qual.	5 Q.
provokes Appetite	good for ſtomach, liver	
purges Serum, Choler	good for liver ſpleen	
provokes Appetite		
diuretic	cardiac	Alexi.
anodyne		
purges choler		

Thickened Juices.

3 Qual.	4 Qual.	5 Q.
emplaſtic		Alexi.
pur. choler, heals wounds, ulcers		
looſens the belly	good for the ſpleen	
good for hyſteric fits		
vulnerary		
anodyne, forces Courſes	good for ſtomach, brain	
vulnerary, provokes courſes	g. for ſtomach, bladder	
vulnerary	good for reins, bladder	
forces urine, courſes, ſweat		Alexi.
	good for the lungs	
extinguiſhes Venery		
ſtops bleeding		
purges ſer. courſes powerfully		
purges flegm		

Frank-

Name.	1 Qual.	2 Qual.
Frankincense	hot, dry	aſtringent
Galbanum	hot, dry	emollient, reſolvent
Gum Gott	hot, dry	
Gum animæ	hot, moiſt	attenuates, reſolves
Gum Arabic	hot, moiſt	thickens
Gum Caranna	hot, dry	mollifies powerfully
Gum Elemy		emollient
Juice of Hypociſtis	cold, dry	aſtringent
Liquoriſh	moiſt	mollifies, lenient
Lacca	hot, dry	attenuates, opens
Labdanum	hot, dry	emollient
Manna		cleanſes
Maſtich	hot, dry	emollient
Myrrh	cold, dry	opens, attenuates
Opium	hot, dry	diſſipates
Opobalſamum	hot, dry	opens, reſolves
Opopanax	hot, dry	diſcuſſes
dry Pitch	hot, dry	emollient
Roſine of Fir	hot, dry	emollient
Roſine of the Larix	hot, dry	attenuates
Roſin of the Pine	hot, dry	mollifies, digeſts
Roſin Copal (white, brown	hot, moiſt	emollient, reſolves
Sugar fine, brown, candy	hot, moiſt	emollient, incides
Sagapenum	hot, dry	attenuates, opens
Sandarach, Gum Junip.	hot, dry	diſcuſſes
Sarcocol	hot, dry	aſtringent
Scammony	hot, dry	
Storax	hot, dry	emollient
Tachamahaca	hot, dry	aſtringent
Turpentine	hot, dry	mollifies, cleanſes
Tartar white	cold, dry	attenuates, incides
Tragacanth	cold, moiſt	thickens
common Wormwood	hot, dry	cleanſes

3 Qual.	4 Qual.	5 Q.
vulnerary, anodyne		
anodyne, forces courſes	haſtens delivery	
purges upwards, downwards	ſalt, ſerum	
cephalic, ſtomachic		
	good for nerves, ſwelling	
	cephalic	
vulnerary		
anodyne	g. for lungs, reins, bladder	
diuretic, antiſcorbutic	good for the ſpleen	
good for quinſey, cough		
purges choler, forces courſes		
	good for the ſtomach	
reſiſts Putrefaction		
narcotic		
moves courſes		
purges flegm, forc. courſes, uri.		
good for the Tooth-ach		
moves the belly, forces urine		
anodyne, ſuppurates	good for the head	
	good for breaſt, ſtomach	
purges flegm, reſolves tumours	g. for breaſt, nerves	
ſtops bleeding	good for nerves, head	
vulnerary, emplaſtic		
purges Choler, Serum		
moves the Courſes	cephalic, uterine	
anodyne, ripens	good for the gout, ſwellin.	
moves the belly, forces urine	thoracic	
moves the belly		
emplaſtic, anodyne		
procures appetite		

Of Animals and things taken from them.

Name.	1 *Qual.*	2 *Qual.*
Butter	hot, moiſt	lenient
Oriental Bezoar	hot, dry	attenuates
Occidental Bezoar	hot, dry	attenuates
Fleſh of Crabs		
Crabs Eyes	cold, dry	cleanſing
Cantharides	hot, dry	
Caſtor	hot, dry	attenuates
Cuttle Bone	cold, dry	cleanſes
Civet	hot, moiſt	attenuates
Deer's Marrow	hot, dry	reſolves, mollifies
Earth Worms	hot, moiſt	diſcuſſes
Elk's Hoof		
Duck's Fat	hot, moiſt	emollient
Gooſe Fat	hot, moiſt	opens
Dog's Fat	hot, dry	cleanſes
Deer's Fat	hot, moiſt	emollient
Cat's Fat	hot, moiſt	emollient
Hen's Fat	hot, moiſt	lenient, reſolving
Man's Fat	hot, moiſt	diſcuſſes
Sow's Fat	hot, moiſt	lenient, reſolvent
Badger's Fat	hot, moiſt	emollient
Bear's Fat	hot, moiſt	emollient
Goat's Blood	hot, dry	opens Obſtructions
Goat's Suet	hot, moiſt	diſcuſſes
Hart's Horn	hot, dry	attenuates
Hony	hot, dry	cleanſing, opening
Ivory	cold, dry	aſtringent
Iſinglas	cold, dry	aſtringent
Lard	hot, moiſt	emollient
Leeches	ſuck blood	are narcotic
Man's Skull	cold, dry	aſtringent
Musk	hot, dry	attenuates

Of Animals and things taken from them.

3 *Qual.*	4 *Qual.*	5 *Q.*
anodyne, looſens the belly		
anodyne	*cardiac*	**Alexi.**
Sudorific	*cardiac*	**Alexi.**
g.f.a hect.f.c.cu.the bi.of q m.d.		
good for the ſtone		
raiſes Bliſters		
anodyne	*good for the nerves, head*	
ſtops a Gonorrhea		
anodyne	*cardiac*	
anodyne		
diuretic, narcotic	*good for Nerves, lungs*	
good for an Epilepſy		
anodyne	*good for limbs, nerves*	
cures a noiſe of the Ears		
conſolidates		
anodyne		
good for the limbs		
anodyne, good for chap'd lips		
anodyne		
anodyne		
anodyne		
hinders baldneſs		
reſolves concreted blood		
good for a Strangury		
ſudorific		
forces Urine	*good for heart, brain*	
kills Worms		
anodyne		
good for the falling-ſickneſs		
refreſhes the vital Spirits		

Name.	1 *Qual.*	2 *Qual.*
Mummy	hot, dry	attenuates
Oeſypus	hot	emollient
Pikes Jaw	cold, dry	cleanſing
Stone of the Bladder		
Venice Soap		cleanſes
Sclnke		
Scorpion dryed		
Sperma Ceti	hot, moiſt	reſolves
Spodium of Ivory	cold, dry	aſtringent
Viper's Fleſh	cold, dry	ſudorific
Unicorn		
Wax white, yellow	hot, dry	thickens

Of Minerals.

Names.	1 *Qual.*	2 *Qual.*
Antimony	cold, dry	aſtringent
Allom roch, burnt	cold, dry	aſtringent
Arſnick white	hot, dry	
Auripigmentum	hot, dry	
Armenian Stone		
Glaſs of Antimony		
Burnt Braſs	cold, dry	aſtringent
Bole Armenick	cold, dry	aſtringent
Common Bole	cold, dry	aſtringent
White Bole	cold, dry	aſtringent
Borax		
Blood-ſtone	cold, dry	aſtringent
Cerus	cold, dry	aſtringent
Chalcitis	hot, dry	
Mineral Cinnaba	hot, dry	cleanſes
Chryſtal	hot, dry	aſtringent
Lemnian Earth	cold, dry	aſtringent
Granate	cold, dry	attenuates, binds
Leaf-Gold		

3 Qual.	4 Qual.	5 Q.
resolves		
anodyne		
good for a pleurisy		
sudorific		
anodyne		
excites venery		Alexi.
lithontriptic		
anodyne		
		Alexi.
sudorific	cardiac	Alexi.
ripens		

Of Minerals.

3 Qual.	4 Qual.	5 Q.
corrosive		poyson
		poyson
corroborates		
purges upward, downward		
cure old ulcers		Alexi.
sudorific		
purges Melancholy		
for. Courses, hastens Delivery		
good for spitting blood		
escharotic		
cures malig. ulcers, french. pox		
breeds Milk, go. for the stone		
sudorific		Alexi.
good for palpit. of the heart	cardiac	Alexi.
diaphoretic, g. for melancholy	cardiac	

Name.	1 *Qual.*	2 *Qual.*
Hiacinth	cold, dry	aſtringent
Quick-lime	hot, dry	
Lapis Caliminaris	cold, dry	cleanſes
Lapis Lazuli		
Litharge of Gold, Silver	cold, dry	aſtringent
Load-ſtone	cold, dry	aſtringent
Red Lead	cold, dry	aſtringent
Burnt Lead	cold, dry	aſtringent
Oſteocolla		
Pomphalix	cold, dry	aſtringent
Ruby	cold, dry	
Leaf Silver	cold, moiſt	
Quick Silver	cold, moiſt	(of the earthy Part
Steel	cold, dry	aſtringent on account
Sal Armoniack	hot, dry	attenuates, reſolves
Sal Gemma	hot, dry	opens
Salt Peter	cold, dry	incides, reſolves
Saphyr	cold, dry	aſtringent
Sardus	cold, dry	aſtringent
Smaradg	cold, dry	aſtringent
Sublimate	hot, dry	cleanſing
Sulphur	open, incide	diaphoretic
Topaz	cold, dry	
Tutty	cold, dry	cleanſing
Verdigreaſe (*Roman*	hot, dry	cleanſes
Vitriol hangaric White,	hot, dry	cleanſes

Sea things.

Name.	1 *Qual.*	2 *Qual.*
Amber-greaſe	hot, dry	opens, reſolves
Coral white, red	cold, dry	aſtringent
Coralline	cold, dry	thickens
Lapis Nephriticus		
Pearls	cold, dry	aſtringent
Judaic Stone		
Pumex Stone	cold, dry	attenuates
the Fire Stone	heats, drys	digeſts, diſcuſſes

3 Qual.	4 Qual.	5 Q.
corroborates		Alexi.
escarotic		
cures Ulcers		
purges melancholy		
breeds Flesh		
purges Melancholy		
joyns bones		
cures ulcers		
expels sorrow		g.agai.
strengthens	good for the head	(poyson
kills Worms, cures Itch	salivates (of salt	
	aperitive on the account	
Diaphoretic		
good for the cholic		
resists putref. cures inward ul.		
	cardiac	resists
stops bleeding	cardiac	(poyson
stops all Fluxes	good for the memory	g.ag.p.
very corrosive		Poys.
pectoral		Alexi.
stops bleeding	cardiac	
consolidates		
draws	corrodes	
provokes vomiting		

Sea things.

3 Qual.	4 Qual.	5 Q.
corroborates the vital spirits	cardiac, cephalic, nervine	
	cardiac	
kills worms		
cures the stone		Alexi.
chears the Soul	cardiac	
expels gravel		
cicatrizes, breaks the stone		
it's mixed with Plasters		

A Collection of Medicines, and the Virtues and Uſes of them.

I Begin firſt with ſimple Waters in Uſe.

Sorrel Water cools and dries, and is uſed in alexipharmic Potions for a Vehicle.

Bettony Water heats, dries, attenuates, is diuretic and cephalic.

The Water of Holly Leaves heats, dries, cleanſes, is diuretic and ſplenetic.

Carduus Water heats, dries, is ſudorific, and alexipharmic.

The Water of the leſſer Centaury heats, dries, cures Fevers, and kills Worms.

The Water of the greater Celandine heats, dries, cleanſes, clears the Eye when there is a Cataract.

Succory Water cools and dries, it is cephalic, cardiac, uterine, and ſtomachic.

The Water of Scurvy-graſs heats and dries, is antiſcorbutic and ſplenetic

Eye-bright Water heats, dries, is aſtringent, and ſtops Fluxions on the Eyes.

Fennel Water heats, attenuates, diſcuſſes, and is ſudorific, and clears the Sight

Bean-flower Water cleanſes, provokes Urine, and beautifies the Face.

Strawberry Water cleanſes the Face and Skin, and aſſwages an Eryſipelas.

The Water of Lavender Flowers heats, dries, and is cephalic.

The Water of the Flowers of Lillies of the Vallies heats and dries, is cephalic, cures an Apoplexy, Epilepſy, and Giddineſs.

Roſe Water cools and dries, is cardiac and cephalic.

Elder-flower Water mollifies, reſolves, and is good for

an

an Eryſipelas, taken inwardly, or outwardly applyed.

Lime-flower Water cures the Falling-ſickneſs, and expels Wind in Children, being ſweetned with Sugar.

The Water of Oak Leaves cools and dries, and cures the Bloody-flux and Hemorrhages.

Fumitory Water prepares Bile and Melancholy.

The Water of Graſs is diuretic and lithontriptic, and ſtops a Flux of Blood.

Hyſop Water heats, dries, attenuates, and cuts groſs Humours contained in the Lungs.

Lettice Water cools, moiſtens, and provokes Sleep.

Mallow-flower Water heats, moiſtens, mollifies, and is good for Diſeaſes of the Lungs, Reins, and Bladder, and for Heat of Urine.

Balm Water heats, dries, is cardiac, and good againſt Melancholy.

Water of Honey heats, moiſtens, is diuretic, lithontriptic, breeds Hair, and cures a Suffuſion of the Eyes.

Mint Water heats, dries, is good for the Stomach and the Head.

Red Poppy Water cools, promotes Sleep, and is good for a Pleuriſy.

Parſly Water heats, dries, is diuretic, lithontriptic, and opens Obſtructions.

Purſlain Water cools, moiſtens, and takes away Heat of Urine.

Pennyroyal Water heats, dries, is hyſteric, and is good to force the Courſes and Secundine.

Nightſhade Water dries, cools, and cures an Eryſipelas, and Cancers of the Papes.

Frog-ſpawn Water cools and dries, and cures Inflammations and Burns, and ſtops the Flux of the Hemorrhoids, and cures a red Face.

Of Compound Waters.

The Water of unripe Wallnuts, or the Amſterdam *Alexipharmic.*

TAke of unripe Wallnuts with their outward green Shells, gathered in *May*, and bruiſed, two Pound; of the Herbs, Carduus Benedictus, Balm, Rue, Scabius, Scordium, each two Ounces; Cut them, and pour upon them of Wine Vinegar as much as will riſe ſome Fingers above the Matter. Diſtil it in Glaſs as long as any Liquor will drop. Keep it in a Glaſs for Uſe.

This is much commended by Practitioners. It attenuates, incides, penetrates, cleanſes, reſiſts Putrefaction, is good in Malignant Fevers, and the Plague. The Doſe is half an Ounce, or an Ounce.

The Amſterdam *Epileptick Water.*

Take of the Roots of Male Peony dryed, half a Pound, of the Roots of Angelica and Fraxinella, of the Leaves of cretic Marjoram, Rue, and Sage, each one Ounce; of the Flowers of Male Peony, Bettony, Lilly of the Vallies, Lime-tree dryed, of the Seeds of oriental Biſhops-weed, Nigella, each half an Ounce; of Peony two Ounces; of woody Caſſia, Cloves, the leſſer Cardamoms, Nutmeg, each two Drams; powder them groſsly, and pour upon them five Quarts of *French* Wine, or *Rheniſh* Wine, of common Water a Quart. Digeſt them four and twenty Hours, then diſtil them in Sand, and draw off about four Quarts. Keep it in a Glaſs well ſtopt.

This is excellent for many Diſeaſes. It ſweetens the Maſs of Blood, and cauſes Sweat, is good for all cold Diſeaſes, and for ſuch as proceed from an acid Fer-

Ferment. It reſolves, attenuates, incides, cleanſes, is ſtomachic, cephalic, diuretic, good for the Apoplexy, and the Falling-ſickneſs. The Doſe is from two Drams to ſix in Balm Water.

The Antinephritic Water of Amſterdam.

Take of Horſe-radiſh Root, four Ounces; of Liquoriſh, the Roots of Reſtharrow, Parſly, and Burnet, each two Ounces; of nephritic Wood and Saſſafras, each three Ounces; of the Leaves of Ground Ivy, Bettony, Chervil, Strawberries, each two Handfuls; of the Seeds of Fennel and Nettles, and of the Berries of Winter Cherries, each two Ounces; of Juniper Berries one Ounce; cut and beat them, and infuſe them in a ſufficient Quantity of Ground-ivy and Wine, three Days and Nights; then diſtil them in a Cucurbit in *Balneo Mariæ* to Siccity.

This opens, attenuates, reſolves, forces Urine and Sweat, and is a Specific for the Stone in the Reins and Bladder. The Doſe is from half an Ounce to one Ounce.

The Palſy Water.

Take of the Roots of Sarſa-parilla, of the Wood of Guiacum, each one Pound and an half, of Saſſafras four Ounces, of the Herbs Bettony, Mountain Calaminth, Germander, Ground Pine, Hyſop, Marjoram, Origanum, black Horehound, Primroſe, Penny-royal, Roſemary, Sage, wild Thym, Thym, the Flowers of Marygolds, and Stæchas, each one Handful, Juniper Berries one Ounce: Cut them and beat them, and infuſe them in a ſufficient Quantity of Spirit of Wine for three Days and Nights, then diſtil them in *Balneo Mariæ*; to the diſtilled Water add of the Roots of bitter Coſtus, Pyrethrum, Ginger, the Seeds of white Muſtard,

ſtard, Cinnamon, Storax, Calamite, Caſtor, each one Dram. Digeſt them ſome Days and Nights, then filtrate them through a Linnen Cloath, and keep the Liquor for Uſe.

It heats, dries, attenuates, opens, reſolves, is ſtomachic, cephalic, and uterine, uſed inwardly or outwardly.

The Hyſteric Water.

Take of the Roots of Briony dryed, of ripe Elder Berries, dryed by a gentle Fire, and cleanſed from the Stalks, each two Ounces, of the Leaves of Mugwort, Dittany, of Creet, Mother-wort, Nep, Baſil, Penny-royal, Rue, Savin dryed in the Shade, each half an Ounce, the yellow Peel of Oranges, one Ounce and an half; powder them and infuſe them for eight Days in three Quarts of Spirit of Wine, and one Quart of common Water; diſtil them in *Balneo Mariæ*, and draw off four or five Pints, wherein infuſe of Myrrh and Caſtor, each half an Ounce, of *Engliſh* Saffron three Drams; digeſt them for ſome Days, then ſtrain the Tincture through a Cloath, and keep it for Uſe.

It heats and dries powerfully, penetrates, reſolves, opens Obſtructions, forces Urine, Sweat, the Courſes, and cures a great many cold Diſeaſes. The Doſe is from two Drams to half an Ounce.

Treacle Water.

Take of the yellow Bark of Citrons dryed, of the Roots of Butter-bur, Liquoriſh, Burnet, Tormentil, each two Ounces; white Dittany, Gentian, Maſterwort, Periwinkle, Zedoary, the Leaves of Carduus Benedictus, Rue, Scabius, Scordium dryed, each one Ounce; the Seeds of Sorrel and Carduus Benedictus, each half an Ounce; powder them all groſsly, and infuſe

fuſe them in ſix Quarts of the beſt Spirit of Wine, and in three Pints of common Water: Digeſt them twenty four Hours, then diſtil them in Sand or *Balneo Mariæ*, and draw off three Parts of four. Add to the Spirit drawn off, three Drams of *Engliſh* Saffron, three Ounces of *Venice* Treacle, and half an Ounce of Oyl of Sulphur by the Bell. Digeſt them for three Days and Nights, then ſtrain it through a Sive, and keep it in a Glaſs well ſtopt.

It heats, dries, evacuates by Urine and Sweat, it corrects acid Ferments that are too acrid, and reſtores a due Texture to the Maſs of Blood. The Doſe is from two Drams to half an Ounce.

Compound Aqua Vitæ.

Take of ſharp Cinnamon three Ounces, of all the Sanders ſix Drams, of the Roots of Avens, Galingal, Ginger, and the outward Bark of Oranges and Citrons dryed, each two Drams and an half, of Nutmeg, the leſſer Cardamoms and Mace, each three Drams; of the Seeds of Aniſe, cretick Daucus, ſweet Fennel, and Baſil, each one Dram and an half; of Gillyflowers, red Roſes, and the Flowers of Roſemary, each two Drams; make of all a groſs Powder, and pour upon it of the beſt Spirit of VVine ſix Quarts, of common VVater one Quart, digeſt them a Night and a Day, and then diſtil them in *Balneo Mariæ*, or in Sand, and draw off two Thirds of the Liquor: In the Spirit drawn off infuſe of the Powder Diamargarit frigid, and Diambra, each three Drams, of Amber-greaſe and Musk tied up in a Rag, each ten Grains; digeſt them three Nights and Days; to the ſtraining add of Julep of Roſes half a Pint, mingle them, and keep it for Uſe.

It heats, dries, is ſtomachic, cardiac, cephalic, and alexipharmic: It is good for all cold Diſeaſes, and for the Palſy, Apoplexy, and Epilepſy: The Doſe is half an Ounce.

Tincture

Tincture of Cinnamon.

Take of ſharp Cinnamon groſly powdered, two Ounces, Spirit of VVine rectified eight Ounces; put the Cinnamon into a long Viol, and afterwards pour upon it the Spirit of VVine; lute well to the Top of the Viol another Viol, and place it upon hot Sand for eight Days, then gently pour off the Tincture and keep it for Uſe.

It heats, dries, is ſtomachic, uterine, cardiac, and cephalic: The Doſe is from two Drams to half an Ounce.

Tincture of Guiacum.

Take of the Shavings of Guiacum ſix Ounces, Spirit of VVine rectified, twelve Ounces, mingle them and digeſt them in a long Viol with another well luted to the Mouth of it for eight Days and Nights, then decant the Tincture, and ſtrain it gently through a linnen Cloath, and keep it for Uſe.

It heats, dries, is ſtomachic, cures Catarrhs, and is of a pleaſant Smell and Taſte: The Doſe is from half an Ounce to one Ounce.

Tincture of Caſtor.

Take of Caſtor groſly powdered, half an Ounce; put it into a long Viol, and pour upon it three Ounces of rectified Spirit of VVine; digeſt it eight Nights and Days, pour off the Tincture, and ſtrain it through a linnen Cloath, and keep it for Uſe.

It heats, dries, is hyſteric, good for the Falling-ſickneſs and the Palſy: The Doſe is from ſix Drops to twenty.

Tincture

Tincture of Saffron.

Take of *Engliſh* Saffron one Ounce, put it into a log Viol, and pour upon it ſix Ounces of Spirit of VVine; digeſt it for eight Days, then pour off the Tincture and keep it for Uſe.

It heats, dries, is ſudorific, anodyne, ſtomachic, and forces the Courſes: The Doſe is from ſix Drops to ten.

Elixir Proprietatis.

Take of Myrrh, Aloes, and Saffron, each half an Ounce, of Spirit of VVine rectified, ten Ounces, of Spirit of Sulphur by the Bell, half an Ounce; extract firſt with the Spirit of VVine, a Tincture from the Saffron, by digeſting it ſix or eight Days; afterwards pour this Tincture with the Spirit of Sulphur upon the Myrrh and Aloes beat ſmall; digeſt them for a Month in a long Viol well ſtopt, and ſhake the Glaſs now and then, decant the black Tincture gently from the *Fæces*, and then either fling away the *Fæces*, or extract another Tincture from it, with Spirit of VVine as before: After the Elixir has ſtood without ſhaking a Night, decant it again, and afterwards let it ſtand a Night without ſhaking, and ſo decant it again till you find no *Fæces* at the Bottom, which you will find in the ſpace of few Days: This is commonly called *Elixir*, or *Alexiterium Proprietatis.*

This Tincture is hot and dry, ſtomachic, anodyne, uterine, alexipharmic, it looſens the Belly, two Drams of it being taken at a time, and cures Tertian Agues, and is an nniverſal Medicine; it agrees with all Ages and both Sexes: It alters, evacuates, and ſtrengthens; and, according to the Opinion of an excellent Phyſician, every Practitioner ought to have it in

in Readineſs: The Doſe is from ſix Drops to twelve, unleſs you deſign to purge, then you muſt give two Drams in VVine or Beer.

Tincture of Opium.

Take of crude Opium ſliced and toaſted on iron Plates, one Ounce, of the Spirit of wine Vinegar, ſix Ounces: Mix them in a Glaſs Cucurbit, and digeſt them three Days and Nights, then ſtrain the black Tincture through a linnen Cloath, and keep it for Uſe.

It is hypnotic, anodyne, narcotic, and may be uſed inſtead of Laudanum Opiatum, in Potions, and other Liquors: Being applyed outwardly to the Temples with a Rag dipt in it, it eaſes Pain, and promotes Sweat; it alſo aſſwages Pains of the Gout: The Doſe is two or three Drops.

Tincture of Steel.

Take of the Filings of Steel, one Ounce, of Rheniſh VVine ten Ounces; infuſe them in a cloſe Glaſs eight Nights and Days, then decant the red VVine and keep it for Uſe.

It opens, cleanſes, corrects a muriatick Salt, and the acid, when it is too acrid. It opens Obſtructions, looſens the Belly, and is good for a Cachexy: The Doſe is half an Ounce two or three times a Day. The ſame way is prepared Tincture of Strawberries, infuſed in rectified Spirit of VVine, new Strawberries being added till the Tincture is made. This Tincture is lithontriptic. The Tincture of Lacca is made the ſame way, which is hyſteric, antiſcorbutic, and hypochondriack; and ſo is the Tincture of Scordium made, which is alexipharmic.

Spirit

Spirit of Vinegar.

Take of the ſharpeſt VVine Vinegar, fourſcore Ounces; diſtil it in a low Glaſs Cucurbit, in *Balneo Marie*, till that which remains in the Cucurbit is of a pitchy Conſiſtence. All the Liquour that comes forth is called diſtilled Vinegar, or Spirit of Vinegar.

It cools, dries, binds, reſtrains luxuriant Sulphur; but joined with Alcalies, it opens, cleanſes, and forces Urine, and moves the Belly, as may be ſeen, when it is copulated with Crabs-eyes, Coral, or Steel. It alſo provokes Sweat, by reaſon of the Volatility, and different Parts whereof it conſiſts; namely, the ſubtle volatile Alcaly, which coagulates upon Lead, and taſtes as ſweet as Sugar, but turns to an inſipid Fat upon Salt of Tartar, or fixed Nitre: The Doſe is from half an Ounce to an Ounce.

Roſe Vinegar.

Take of red Roſes, one Pound, of wine Vinegar, ſix Quarts; put them into a large Glaſs with a narrow Neck, ſtop it well, and tie it over with a Leather, and expoſe it to the Heat of the Sun for forty Days in the Summer; then preſs out the Vinegar through a Cloath, and keep it for Uſe; or if you pleaſe, you may put in new Roſes, and place it in the Sun again, as before.

It cools powerfully, dries and binds. It is cephalic and alexipharmic: The Doſe is half an Ounce. The ſame way are prepared the following Vinegars; Vinegar of Marygolds, which is cardiac and cephalic; Vinegar of Roſemary Flowers, which is cephalic and cardiac; Vinegar of Lavender Flowers, which is cephalic; Vinegar of Elder Flowers, which is ſudorific and alexipharmic.

Treacle

Treacle Vinegar.

Take of the Species of the Treacle VVater above deſcribed, except the Oyl of Sulphur by the Bell, the Saffron and the Treacle: Cut them, or beat them groſly, and pour upon them fifteen Pints of VVine Vinegar; ſet them in the Sun for forty Days, or digeſt them eight Days in *Balneo Mariæ*; then preſs out the Vinegar through a Cloath, and keep it for Uſe.

It is an excellent Preſervative againſt the Plague: *I took a Spoonful of this*, ſays *Marggrave*, *Morning, Noon, and Night, and nothing elſe, when the Plague raged violently at* Leyden, *in the Year* 1664, *and viſited the People infected with the Plague every Day, and was preſerved ſafe and ſound, when fifteen Phyſicians dyed of the Plague that Summer.*

Vinegar of Squills.

Take of the Roots of Squills ſliced and hanged up by a Thred thruſt through them, forty Days, and dryed in the open Air, where the Sun or Rain does not come, one Pound; of VVine Vinegar four Quarts; put them into the Sun, as before, then ſtrain it. It attenuates, incides, and is thoracic: The Doſe is half an Ounce.

Prævotius *his purging Vinegar.*

Take of crude Tartar one Dram, or inſtead of it, of Cream of Tartar, half an Ounce, of the Leaves of Sena cleanſed, three Drams, of Cinnamon and the Seeds of Aniſe, each half a Dram, of the ſharpeſt VVine Vinegar one Pint; infuſe them twenty four Hours, then ſtrain out the Vinegar, and keep it for Uſe. It looſens the Belly, attenuates, and incides, and is uſed in Sauces.

Simple

Simple Wormwood Wine.

Take of VVormwood dryed one Handful, of VVine fifty Quarts; put it into a Veſſel well ſtopt, and leave it in Infuſion till all the VVine is drunk. It attenuates, incides, is ſtomachic, and quickens the Appetite. The ſame way is prepar'd the leſſer Centaury VVine, which is hepatic and a Febrifuge. And ſo is made the VVine of black Cherries, which is cardiac, and good for malignant Fevers. And ſo is made Roſmary Flower Wine, which is cephalic and cardiac. So is made Eye-bright Wine which is good for the Head and Eyes.

The common Decoction for a Gliſter.

Take of the Leaves of Mallows, Pellitory, Beet, Violets, Mercury, the Flowers of Camomile, each one Handful, the Seeds of Aniſe and ſweet Fennel, each two Drams; boyl them in a ſufficient Quantity of Water to a Pint. It mollifies the Fæces contained in the great Guts, and expels Wind, and is anodyne.

A ſharp Gliſter.

Take of the leſſer Centaury, Hyſſop, and Rue, each one Handful and an half, of the Seeds of Carawys, Fennel, and Cummin, each three Drams, of Agaric tyed up in a Rag, two Drams, of the Pulp of Coloquintida, one Dram: Boyl them in Fountain VVater to a Pint; to the ſtrained Liquor add of the Electuary of Hiera Picra one Ounce, mingle them, make a Gliſter. It powerfully attenuates, incides, cauſes a Reuvlſion, is good in ſleepy Diſeaſes, and for other Diſeaſes of the upper Parts.

The Carminative Decoction for a Gliſter.

Take of the Seeds of Aniſe, Fennel, and Cummin, each half an Ounce, of Lawrel Berries bruiſed, three

Drams, of the Flowers of Camomile and Dill, each half an Handful; boyl them in common VVater till half is conſumed. It incides, attenuates, and conſumes Wind ſticking in the Guts.

The Decoction of Brimſtone.

Take of crude Sulphur powdered, half a Pound, of Fountain Water five Quarts; boyl it till half is conſumed; keep the ſtrained Liquor for Uſe. Being taken inwardly, it cools the Blood in Fevers; outwardly applyed, it cures the Itch, and Inflammations, and Redneſs in the Face.

Syrup of Vinegar.

Take of clarified Sugar, boyled to the Conſiſtence of Tablets, four Pound; pour upon it in an earthen Pot a ſufficient Quantity of White-wine Vinegar, ſo as to make a Syrup without boyling, only ſtir it about till it comes to a Syrup. It cools, attenuates, incides, and quenches Thirſt.

Syrup of the Juice of Sorrel.

Take of clarified Sugar, boyled to the Conſiſtence of Tablets, four Pound; pour upon it in an earthen Veſſel, the Juice of Sorrel clarified by ſettling, and ſtrained, a ſufficient Quantity, ſo as that a Syrup may be made without boyling, only ſtir it about. It cools, thickens, is good for malignant Fevers, and the Plague.

Syrup of unripe Grapes.

Take of clarified Sugar, boyled to the Conſiſtence of Tablets, four Pound; pour upon it in an earthen Pot, a ſufficient Quantity of the Juice of unripe Grapes, ſtir it about,

about, and make a Syrup without boyling. It cools, binds, ſtops vomiting and a Looſneſs, and takes off Thirſt and Heat. The ſame way is made Syrup of Quinces, which binds and ſtrengthens the Stomach, and ſtops vomiting and a Looſneſs, ſpitting of Blood, a Flux of the Hemorrhoids and Courſes, the Bloody-flux, and the Coeliac Diſeaſe. The ſame way is made Syrup of Pomgranates, which cools, moiſtens, reſiſts Putrefaction, and ſtops vomiting and Looſneſs, and is cardiac. The ſame way is made Syrup of Lemons, which cools, incides, comforts the Heart, cures peſtilential and continual Fevers, and the Heart-burning.

Syrup of Scurvygraſs.

Take of clarified Sugar, boyled to the Conſiſtence of Tablets, four Pound, of Scurvygraſs Water, a ſufficient Quantity, to make a Syrup without boyling. It heats, drys, qualifies an Acid, and is antiſcorbutic.

Julep of Roſes.

Take of clarified Sugar, boyled to the Conſiſtence of Tablets, two Pound; pour upon it a ſufficient Quantity of Roſe-water, to make a thin Syrup without boyling. It cools, dries, is cardiac, thoracic, and ſtomachic.

Syrup of Violets.

Take of Sugar, boyled to the Conſiſtence of Tablets, two Pound; pour upon it of the Infuſion of the freſh Flowers of Violets, a ſufficient Quantity; make a Syrup without boyling. It cools moiſtens, corrects the Acrimony of Bile, and is thoracic and cardiac.

Compound Syrup of Wormwood.

Take of *Roman* Wormwood dryed, ſix Ounces, of red Roſes two Ounces, of *Indian* Spiknard, three Drams; bruiſe them, and infuſe them twenty four Hours in old odoriferous White-wine, and clarified Juice of Quinces, each three Pints, boyl them over a gentle Fire till half is conſumed, then ſtrain them; to the ſtrained Liquor clarified, add of clarified Honey, boyled to a Conſiſtence, and white Sugar, each one Pound; afterwards boyl them to the Conſiſtence of a Syrup. It heats moderately, binds, expels Wind, is ſtomachic, and forces Urine.

Fernelius's *Syrup of Marſh-mallows.*

Take of the Roots of Marſh-mallows two Ounces, red Vetches one Ounce, of the Roots of Aſparagus, Liquoriſh raſped, Graſs, Raiſins of the Sun ſtoned, each half an Ounce, of the Tops of Marſh-mallows, of the Herbs Mallows, both the Maiden-hairs, Pellitory of the Wall, Burnet, and Plantain, each one Handful, of the four greater and leſſer cold Seeds bruiſed each three Drams; boyl them in a ſufficient Quantity of Water to the Conſumption of the third Part, ſtrain the Liquor out, and boyl it to a Syrup with four Pound of white Sugar. It is temperate, looſens, mollifies, cleanſes the Reins from Filth and Gravel, and takes off the Heat of Urine.

Fernelius's *Syrup of Mugwort.*

Take of the Roots of Fennel, Elicampane, Orris, Lovage, Peony, and Madder, each half an Ounce, of the Herbs Mugwort two Handfuls, Bettony, Calaminth, Germander, Ground-pine, Hyſop, St. *John*'s-wort,

wort, Featherfew, Balm, Nep, Origanum, black Horehound, Pennyroyal, Savin, each one Handful, the Seeds of Aniſe, Daucus, Fennel, Nigella, Baſil, Parſly, Rue, each three Drams: Beat them and cut them, and infuſe them twenty four Hours in a ſufficient Quantity of ſmall Hydromel; boyl them according to Art, and with five Pound of Sugar, boyl it to a Syrup, aromatize it with an Ounce of Cinnamon, and three Drams of Spiknard. It heats, opens, incides, moves the Courſes, and is good for hyſteric Diſeaſes.

Simple Syrup of the Juice of Bettony.

Take of the Juice of Bettony clarified three Pints, of white Sugar one Pound and an half; boyl them to the Conſiſtence of a Syrup. It heats, opens, cleanſes, is cephalic and uterine, and gently moves the Courſes. The ſame way is prepared the Syrup of Borrage, which moiſtens, and is good for Melancholy, Fainting, and Palpitation of the Heart. So is made Syrup of Carduus Benedictus, which heats, moves Sweat, is alexipharmic, good in a Pleuriſie, and to kill Worms. Simple Syrup of Succory is alſo made in the ſame way. It cools, opens, and is hepatic. So is alſo made Syrup of Scabius, which heats, cleanſes Impoſthumes, is thoracic, and is good in a Pleuriſie, and for malignant Fevers.

Syrup of the Oak of Jeruſalem.

Take of the Herb called Oak of *Jeruſalem*, three Handfuls, of Hedg Muſtard, Nettles, each two Handfuls, of red Colwort and Coltsfoot, each one Handful and an half: Boyl them in a ſufficient Quantity of Water; to the ſtrained Liquor add two Pound and an half of white Sugar; clarifie and boyl it to a Syrup. It heats, cleanſes, and is thoracic.

Simple Bizantine Syrup.

Take of the Juice of Smallage and Garden Succory, each a Quart, of Bugloſs and Hops, each a Pint; boyl them till they are clear, and afterwards boyl them to a Syrup with three Pound of Sugar. It is temperate, it opens, incides, is good for the Jaundice, and to force the Courſes.

Simple Syrup of Maiden-hair.

Take of freſh Maiden-hair a little cut, five Ounces, of the Roots of Liquoriſh raſped two Ounces; infuſe them twenty four Hours in a ſufficient Quantity of hot Water, then boyl them according to Art; to five Pints of the clarified Liquor ſtrained, add four Pound of Sugar; boyl it to a Syrup. It is temperate, incides, attenuates, and opens.

Syrup of Cloves.

Take of the Water of aromatic Cloves, white like Milk, four Ounces; diſſolve in it as much Sugar as will make it a Syrup without boyling. It heats, dries, attenuates, is cardiac, ſtomachic, uterine, and cephalic.

Syrup of Cinnamon.

Take of the beſt Cinnamon Water white like Milk a ſufficient Quantity; make a Syrup of it with a ſufficient Quantity of Sugar without Fire. It heats, dries, is cardiac, uterine, and cephalic.

Syrup of Coral.

Take of red Coral powdered half an Ounce, of ſweet Spirit of Niter three Ounces; mingle them in a long

long Viol, and digeſt them twenty four Hours in a hot Place, then filtrate through Paper, and make a Syrup of the ſtrained Liquor with a ſufficient Quantity of Sugar without Fire. It cools, dries, cleanſes, opens, forces Urine, is good for hypochondriac Diſeaſes, and ſtops violent Fluxes of the Belly.

Syrup of Succory with Rhubarb.

Take of the Roots of Smallage, Aſparagus, Fennel, all freſh, each two Ounces, of the Herbs Succory, Garden Endive, Dandelyon, each two Handfuls, of Fumitory, Liver-wort, Lettice, Hops, Sowthiſtle, each one Handful, Maiden-hair, old Barly, each one Ounce and an half, Winter Cherries, Liquoriſh raſped, each ſix Drams; boyl them in a ſufficientt Quantity of Water to the Conſumption of a third Part; then ſtrain it, and add four Pound of white Sugar, when it is clarified boyl it to a Syrup: In the mean while infuſe in a ſufficient Quantity of the Decoction above preſcribed, of choice Rhubarb four Ounces, of *Indian* Spiknard two Drams; after a gentle boyling, ſtrain out the Liquor, and mingle it with the Syrup towards the End of boyling. It cools, opens, purges Choler, and agrees with every Age and both Sexes: The Doſe is one Ounce and an half, or more.

Syrup called Diacnicu.

Take of the Roots of Angelica, Smallage, Aſparagus, and Fennel, all freſh, of Polypody of the Oak, each one Ounce and an Half, of the bark of Tamariſk, half an Ounce, of the Herbs Maiden-hair, Bugloſs, Germander, Ground-pine, Hyſſop, Origanum, Scolopendrium, Thym, each half an Handful, Dodder, Winter Cherries, each half an Ounce, Raiſins of the Sun cleanſed from the Stones two Ounces, of the Seeds

of Baſtard Saffron bruiſed four Ounces and an half, of the Seeds of Aniſe, Biſhops-weed, Daucus, and Fennel, each one Ounce; boyl them in a ſufficient Quantity of Water to the Conſumption of a third Part; to the ſtrained Liquor add of white Sugar clarified two Pound; boyl it to the Conſiſtence of a Syrup; in the mean while take of the Leaves of Sena cleanſed four Ounces, of choice Rhubarb, one Ounce and an half, of Agaric trochiſcated half an Ounce, of Ginger one Dram; infuſe them hot for a Night in a ſufficient Quantity of the Decoction preſcribed; the next Day boyl them gently, afterwards ſtrain the Liquor out, and mix it with the Syrup towards the End of boyling. It purges gently Flegm and watery Humours by Stool, and it incides and cleanſes; the Doſe is two Ounces.

Syrup of Fumitory.

Take of the Roots of Polypody of the Oak two Ounces, of the Herbs *Roman* Wormwood, Dodder, Endive, Scolopendrium, Hops, each one Handful, Dodder of Thym one Ounce and an half; boyl them in a ſufficient Quantity of Water till half is conſumed; to the ſtrained Liquor add of the Juice of Fumitory one Pint and an half, of the Juice of Borrage and Bugloſs, each half a Pint, of white Sugar four Pound; boyl them to a Syrup. It purges gently by Stool, and opens, and is good for Diſeaſes of the Skin, and for Diſeaſes proceeding from ſalt Humours.

Syrup of Liquoriſh.

Take of Liquoriſh raſped two Ounces, of the Herbs Coltsfoot four Handfuls, Maiden-hair one Ounce, Hyſſop half an Ounce; infuſe them twenty four Hours in a ſufficient quantity of Water, then boyl them to the Conſumption of half; to the ſtrained Liquor add of the

the beſt Honey clarified, and of white Sugar, each one Pound; boyl them to a Syrup. It heats, moiſtens, incides, cleanſes, is thoracic, helps Expectoration, and thickens the Humours flowing upon the Lungs.

Syrup of Hyſſop.

Take of the Herbs Hyſſop dried one Ounce and an half, of Maiden-hair ſix Drams, of the Roots of Smallage, Fennel, and Parſly, all freſh, of Liquoriſh raſped, each ten Drams, of Jujubes and Sebeſtines, each thirty, of fat Figs, and fat Dates, each ten, of Raiſins of the Sun ſtoned one Ounce and an half, of cleanſed Barly half an Ounce, of the Seeds of Quinces and Mallow each three Drams; boyl them in a ſufficient quantity of Water; to the ſtrained Liquor add of the whiteſt Sugar three Pound; clarifie it, and boyl it to a Syrup. It heats, attenuates, incides, cleanſes the Reins and Bladder, is thoracic, good for an Aſthma, a Cough, and to provoke the Courſes.

Syrup of Jujubes.

Take of Jujubes, Number ſixty, of Barly cleanſed, of Liquoriſh raſped, and of Maiden-hair, each one Ounce, of the Flowers of Violets, and of the Seeds of Mallows, each five Drams, of the Seeds of Quinces, Lettice, Melons, and white Poppies, each three Drams; boyl them in a ſufficient Quantity of Water to the Conſumption of half; to the ſtrained Liquor add two Pound of clarified Sugar; boyl it to a Syrup. It cools, thickens thin Humours, takes off Hoarſneſs and a Cough, cures a Pleuriſy, and helps Expectoration.

Syrup of Mint.

Take of the Juice of Mint one Pint, of the Juices of Quinces, and of ſharp Pomgranats clarified, and of the Infuſion

Infuſion of red Roſes, each half a Pint, of white Sugar and clarified Honey, each one Pound and an half; boyl them to a Syrup according to Art, and at the End of boyling aromatize it with half an Ounce of the Powder Diarrhodon Abbatis tyed up in a Rag. It is temperate, aſtringent, ſtomachic, ſtops vomiting, the Hickops, and a Looſneſs.

Syrup of Myrtles.

Take of Myrtle Berries two Ounces and an half, of unripe Medlars half a Pound, of the Seeds of Berberries, Sumach, Balauſtins, red Roſes, white and red Sanders, each one Ounce and an half; bruiſe and boyl them in a ſufficient Quantity of Water, to the Conſumption of a third Part; to the ſtrained Liquor add five Pound of clarified Sugar, boyl them again to a thicker Conſiſtence; toward the End add of the Juices of Quinces, and of acid Pomgranates clarified, each a Quart; make a Syrup according to Art. It cools, dries, is aſtringent and thoracic, it ſtops a Looſneſs, a Flux of Blood, and ſtrengthens the Stomach.

Simple Syrup of Poppies.

Take of the Heads of white Poppies ripe and dried ten Ounces, boyl them in a ſufficient Quantity of Water till half is conſumed; add to the ſtrained Liquor two Pounds and an half of white Sugar, and boyl it to a Syrup. It cools, moiſtens, qualifies Choler, extinguiſhes Thirſt, is thoracic and hypnotic. The ſame way is prepared the ſimple Syrup of Citron Bark, which heats, dries, is ſtomachic, cardiac, cephalic, and alexipharmic.

Syrup of red Poppies.

Take of the freſh Flowers of red Poppies three Pound, boyl them according to Art in a ſufficient Quantity of Water;

Water; to the Liquor ſtrongly preſſed out add three Pound of white Sugar clarified, and boyl up your Syrup. It cools, is aſtringent and thickening, and is proper for burning Fevers, a Pleuriſy and Peripneumonia; it is alſo pectoral and hypnotic: The Doſe is one Ounce and an half.

Syrup of Purſlain.

Take of the Juice of Purſlain one Pint, of the Juices of Daiſies, Strawberries, Lettice, Plantain, the middle Houſeleek, and Violets, all clarified, each two Ounces, of the Seeds of Quinces two Drams, of white Sugar two Pound; boyl them to a Syrup. It powerfully cools, ſoftens, thickens, and kills Worms.

Syrup of the five opening Roots.

Take of the Roots of Smallage, Aſparagus, Fennel, Parſly, Kneeholm, all freſh, each four Ounces; boyl them in a ſufficient Quantity of Water, to the ſtrained Liquor add four Pound of white Sugar, clarifie it and boyl it to a Syrup. It heats, dries, attenuates, cuts thick Humours, forces Urine, moves the Courſes, expels Gravel, and is good for the Jaundice.

Syrup of dried Roſes.

Take of red Roſes dried one Pound, infuſe them twenty four Hours in a ſufficient quantity of warm Water; to the ſtrained Liquor add four Pound of white Sugar, and boyl it to a Syrup. It binds, ſtops Fluxes of the Belly and Womb, and vomiting, and cleanſes Ulcers, and heals them.

Simple Syrup of Roſes ſolutive.

Take of the Infuſion of pale Roſes, the freſh Roſes being put into it nine times, five Pints, of clarified Sugar four

four Pound; boyl it to a Syrup. It purges Choler and watery Humours by Stool; the higheſt Doſe is three Ounces. Syrup of Gillyflowers is made the ſame way. It heats, dries, is cardiac and alexipharmic.

Syrup of Roſes ſolutive with Sena.

Take of the Leaves of Sena cleanſed eight Ounces, of the Seeds of Aniſe and ſweet Fennel, each half an Ounce; infuſe them two Days in a ſufficient quantity of the Infuſion of pale Roſes above deſcribed; to the ſtrained Liquor add two Pounds of white Sugar, and boyl it to a Syrup. It purges Choler, Melancholy, and ſerous Humours: The Doſe is two Ounces.

Syrup of Stœchas.

Take of the Flowers of Stœchas four Ounces, of the Herbs Bettony, Calaminth, Origanum, each one Ounce and an half, of Sage, and the Flowers of Roſmary, each half an Ounce, of the Seeds of Fennel, Peony, and Rue, each three Drams; boyl them in a ſufficient quantity of Water till half is conſumed; to the ſtrained Liquor add of Sugar and the beſt Honey, each two Pound, clarifie the Liquor, and boyl it to a Syrup. It heats, attenuates, is cephalic, good for the Falling-ſickneſs, Convulſions, trembling of the Members, and all cold Diſeaſes.

The Syrup of Comfry of Fernelius.

Take of the Roots and Tops of the greater Comfry, of all the Herb Daiſy, each three Parts, of the Herb Bettony, Burnet, Plantain, Knotgraſs, Scabius, Coltsfoot, and the Flowers of red Roſes, each two Parts; bruiſe them when they are green, and preſs out the Juice, boyl it, and take off the Scum; to three Pints of it add two Pounds and an half of white Sugar, boyl it

it to a Syrup. It is temperate, cleanſes gently, is vulnerary, and good for Conſumptions.

Compound Syrup of Violets.

Take of the green Leaves of Violets five Handfuls, of the Seeds of Quinces and Mallows, each ſeven Drams, of Jujubes and Sebeſtins, each Number twenty; boyl them in a ſufficient quantity of Barly Water; to the ſtrained Liquor add one Pound and an half of white Sugar; boyl it to a Syrup. It cools, moiſtens, mollifies, is good for a Pleuriſy, a Cough, Heat of Urine, and nephritic Pains.

Honey Medicines and Robs.

Honey of Mercury.

TAke of the Juice of Mercury clarified three Pints, of the beſt Honey clarified four Pound; boyl them over a gentle Fire to the Conſiſtence of a Syrup. It looſens, cleanſes, and is only uſed in Gliſters.

Honey of Roſmary.

Take of the Tops of Roſmary with the Flowers dried in the Shade one Pound, infuſe them a little in a ſufficient quantity of Water, then with three Pound of the beſt Honey clarified, boyl them over a gentle Fire, and while they are hot ſtrain them through a Cloath. It heats, dries, expels Wind, prepares Flegm, and is good for the Brain and Nerves. It is uſed in ſharp Gliſters. The ſame way is made Honey of Centaury, which cleanſes and purges Choler. The ſame way is alſo made the ſimple Honey of Roſes, which cleanſes, ſtrengthens the Stomach, and ſtops hot Fluxions.

Solutive

Solutive Honey of Roſes.

Take of the Infuſion of pale Roſes, freſh Roſes being put into it nine times, three Pints, of clarified Honey four Pound; boyl them to the Conſiſtence of a Syrup. It purges Choler and Serum: The Doſe is three Ounces.

Simple Oxymel.

Take of clarified Honey what quantity you pleaſe, diſſolve it over hot Aſhes in an Earthen Pot, and add a ſufficient quantity of White-wine Vinegar; bring it to the Conſiſtence of a Syrup without boyling. It attenuates, cuts groſs Humours, opens Obſtructions, cleanſes, expectorates, renders Reſpiration eaſie, and is in a manner temperate.

Oxymel of Squills.

Take the beſt Honey clarified, what Quantity you pleaſe, diſſolve it as was ſaid before, and add to it a ſufficient quantity of Squill Vinegar, and bring it to the Conſiſtence of a Syrup without boyling. It powerfully cuts groſs Humours, and is good for the Falling-Sickneſs, Giddineſs, and an Hemicrania.

Diamoron of Nicholaus.

Take of the Juice of unripe Mulberries and Bramble-berries, each one Pint and an half, of the beſt Honey clarified one Pound and an half, boyl them according to Art to a thick Syrup. It cools, repels, is aſtringent, good for Inflammations of the Throat and Almonds, the Quinſey, and Ulcers of the Mouth.

Rob of Acacia.

Take of the unripe Fruit of Bullace Tree, a ſufficient quantity, boyl them till they are ſoft, and pulp them through a Sive; to one Pound of Pulp add two Pound of fine Sugar, and boyl them to the Conſiſtence of a Rob. It cools, binds, and is good for the Bloody-flux and a Looſenſs.

Rob of Berberries.

Take of the Juice of Berberries a quart, of white Sugar one Pound; boyl them to the Conſiſtence of a Rob. It cools, binds, qualifies Choler, is good for the *Cholera Morbus*, the Bloody-Flux, and a Looſneſs.

Sapa, or ſimple Rob. It is called by the Greeks, Siræum.

Take of Wine juſt preſſed out of white generous ripe Grapes ſix quarts, boyl it over an open Fire to the Conſumption of two Thirds, namely, that two quarts may remain, of the Conſiſtence of Honey, then keep it for Uſe. It binds, cleanſes, digeſts, nouriſhes, is good for a Cough, and Diſeaſes of the Mouth. Rob of acid Cherries is made the ſame way of the Juice preſſed out and thickened, namely, the Cherries are boyled by themſelves, and pulped through a Sive, and with, or without Sugar, are brought to a Thickneſs. It cools, dries, is cardiac, and alexipharmic.

The Rob of Dwarf Elder and Elder, purge Watry Humours, force Sweat, and is good for hydropick Perſons. The Rob of Quinces is aſtringent, ſtrengthens the Stomach, is good for the Cholera Morbus, and a Looſneſs. Rob of the Juice of Raſpberries cools and binds.

Of

Of things candied.

THE way of candying is not always the ſame; for Roots, Barks, Stalks, hard Fruits muſt be firſt boyled to a Softneſs, and ſome muſt be often infuſed for ſome Days, and afterwards boyled, and ſo candied with Water and Sugar, clarified with the White of an Egg, and boyled to the Conſiſtence of a Syrup; but Flowers and ſoft Fruits with clarified Sugar boyled with Water almoſt to the Conſiſtence of a Syrup; afterwards the Syrup being removed about half an Hour from the Fire, the Flowers and Fruits are put in, and afterwards it is boyled to the full Conſiſtence of a Syrup.

The candied Roots of Acorus heat, dry, and are ſtomachic. The candied Roots of Succory, cool, dry, and qualify Choler. The candied Roots of Elecampane, heat, dry, are thoracic, ſtomachic, and alexipharmic. Eryngo Roots candied, open, ſtimulate Venery, and provoke Urine, and purge the Reins and Bladder. The Roots of Satyrion candied, heat, moiſten, and provoke Venery. The Roots of Scorzonera candied, heat, and are alexipharmic, are good for Melancholy, the Falling-ſickneſs, and Mother-fits. The Roots of Comfry candied, ſtop bleeding, and heal Wounds. Ginger candied, heats, dries, is ſtomachic, and thoracic. The candied Orange Peel heats and dries, expels Wind, and is good for the Plague. The candied Bark of Citron is good for the ſame. Stalks of Lettice cool, moiſten, and quench Thirſt. Orange Flowers candied, and Citron Flowers candied, heat, dry, attenuate, are cardiac, cephalic, diaphoretic, and alexipharmic. The Fruit of the Berberry Tree cools and moiſtens; ſweet Cherries candied moiſten, are cephalic, and reſiſt Malignity. Myrobalans candied are ſtomachic, they qualifie Choler, Flegm, and Melancholy. Walnuts candied are ſtomachic,

machic, force the Courſes, expel Wind, and are good for Cholic Pains. Nutmegs candied, heat, dry, ſtop vomiting, and are ſtomachic. Currants candied, cool and moiſten. Quinces candied, cool, dry, are aſtringent and ſtomachic.

Purging Raiſins.

Take of the Leaves of Sena cleanſed eight Ounces, of the Seeds of ſweet Fennel one Ounce; infuſe them a whole Night in a ſufficient Quantity of the Infuſion of pale Roſes, freſh Roſes being put in nine times, in the Morning boyl them gently; to one Pint and an half of the ſtrained Liquor, add one Pound and an half of white Sugar clarified, *Corinthian* Raiſins cleanſed one Pound; boyl them to a thick Syrup. They purge gently by Stool, and are uſed for tender People and Children. The Doſe is three Ounces.

Of Conſerves.

Conſerves of the Flowers of Bettony heats, dries, is cephalic and ſtomachic. Conſerve of Borrage cures Melancholy and is Cardiac. Conſerve of Marygolds heats, dries, is cardiac, alexipharmic, and moves the Courſes. Conſerve of Succory cools, dries, attenuates, and is hepatic. Conſerve of Eye-bright heats, dries, is cephalic, and good for the Eyes. Conſerve of Mallows is good for the Stone and Breaſt. Conſerve of Water Lillies cools, moiſtens, and diſpoſes to Sleep. Conſerve of Peony heats, dries, is cephalic, and good for the Falling-ſickneſs. Conſerve of pale Roſes purges Choler; the Doſe is five Ounces. Conſerve of red Roſes dries, is aſtringent, cephalic, and cardiac. Conſerve of Roſemary Flowers heats, dries, is cephalic and cardiac. Conſerve of Sage heats, dries, is cephalic and uterine. Conſerve of Comfry heats, dries, is thoracic and vulnerary. Conſerve

of Violets cools, moiſtens, is cardiac and thoracic. All the Conſerves above mentioned, muſt be made of the Flowers of the Herbs. Conſerve of the Herb Wormwood heats, dries, attenuates, opens, is hepatic, ſtomachic, and ſplenetic. Conſerve of Fumitory is hot and dry, it opens Obſtructions. Conſerve of Balm is hot, dry, cardiac, cephalic, and ſtomachic. Conſerve of Mint heats, dries, is aſtringent, cephalic, ſtomachic. Conſerve of Wood Sorrel cools, dries, is aſtringent, ſtomachic, and cephalic. Note, that thoſe things that are dry muſt have three Pound of Sugar to every Pound of the Herb or Flower, and thoſe that are moiſt muſt have two Pound of Sugar to every Pound of the Herb or Flower.

Pearled Sugar.

Take of the whiteſt Sugar one Pound, of the Water of pale Roſes a ſufficient quantity; boyl it to the Conſiſtence of Tablets: Towards the End of boyling, mingle with it of prepared Pearl half an Ounce; form it into Tablets upon a Marble Stone. It cools, is aſtringent, cardiac, and cephalic.

Sugar of Marſh-mallows.

Take of the Pulp of the Root of Marſh-mallows three Pound, of the whiteſt Sugar finely powdered one Pound, with a ſufficient quantity of Roſewater; make Tablets according to Art. It heats, moiſtens, and is thoracic.

Of ſolutive Electuaries, or purging Opiats.

Benedictum Laxativum.

TAke of the Roots of Gummy Turbith, and of Spurge prepared, each ten Drams; of Hermodactiles, Scammony prepared, Flowers of red Roſes, each

each five Drams; of the Roots of Acorus, Galingal, *Indian* Spike, Ginger, Saffron, Mace, Cloves, long Pepper, the Seeds of Smallage, Aſparagus, the leſſer Cardamoms, Caraways, Fennel, Milium Solis, Kneeholm, Sal Gemmæ, each one Dram; with thrice the quantity of the beſt Honey clarified; make an Electuary according to Art. It incides, attenuates, opens, purges Flegm, Choler, and Serum. The Doſe is from half an Ounce to ſix Drams.

Confectio Hamech.

Take of the Leaves of Sena cleanſed, of the Roots of Polypody of the Oak, of choice Rhubarb, of white Agarick, of the Pulp of Coloquintida tyed up in a Rag, of the Flowers of Violets, of the Herbs Dodder of Thym, each two Ounces; of common Wormwood and Thym, each one Ounce; of the Seeds of Aniſe, Fennel, and of red Roſes, each half an Ounce; infuſe them, and boyl them according to Art, in a ſufficient quantity of Whey; to the ſtrained Liquor add of the Juice of Fumitory clarified, and of Sugar, each one Pound and an half; boyl them to the Conſiſtence of Honey, and ſtrain them, and add of the Pulps of Caſſia, Prunes, Tamarinds, and Manna, each one Ounce and an half: When they are brought to a due Conſiſtence, ſprinkle into them, the Leaves of Sena cleanſed, and choice Rhubarb, each one Ounce; of Scammony prepared, one Ounce and an half; of the Seeds of Fumitory, Aniſe, and *Indian* Spike, each three Drams; make an Electuary according to Art. It purges Melancholy, Choler, and ſalt Flegm, and is therefore good for the Itch, Madneſs, and a Cancer. The Doſe is from three Drams to ſix.

Diacarthamum.

Take of the Marrow of the Seeds of baſtard Saffron, of Gummy Turbith, each one Ounce; of Hermodactiles, Scammony prepared, Liquoriſh raſped, each half an Ounce; of Ginger and Cinnamon, each two Drams; of choice Manna, and Honey of Roſes, each one Ounce; of white Sugar diſſolved in the Juice of Quinces one Pound; make an Electuary according to Art. It purges Flegm powerfully. The Doſe is from five Drams to an Ounce. Pills are frequently made of the Species of this Electuary, an Extract of them being made with Spirit of Wine rectified; but Scammony is added to the Extract. The Doſe is one Dram.

Caryo Coſtinum.

Take of bitter Coſtus, of the Seeds of Cummin, white Ginger, and Cloves, each one Dram; of Diagrydium and white Hermodactiles, the outward Bark being taken off, each two Drams; of clarified Honey, and odoriferous Wine, each three Ounces; make an Electuary according to Art. It purges ſerous Humours; but it is chiefly uſed for the Gout. The Doſe is from two Drams to half an Ounce.

Diacatholicon.

Take of the Roots of Polypody of the Oak, four Ounces; of the Seeds of Fennel ſix Drams; boyl them according to Art in a ſufficient Quantity of Water: To the ſtrained Liquor add of white Sugar two Pound; boyl them to a Syrup, wherein diſſolve of the Pulp of Caſſia, and of Tamarinds, each two Ounces; of the Leaves of Sena cleanſed, two Ounces; of choice Rhubarb and Mechoacan, each one Ounce; of the Seeds of

Aniſe

Aniſe half an Ounce, of the four greater cold Seeds, of Liquoriſh raſped, and of the Flowers of Violets, each two Drams; make an Electuary according to Art. It purges all Humours. The Doſe is from half an Ounce to one Ounce.

Diaphenicon.

Take of the Pulp of Dates cleanſed, and infuſed in Vinegar, and pulped through a Sive, and well evaporated, one Pound; of ſweet Almonds blanched, three Ounces; bruiſe them, and mix them, and add to them two Pound of clarified Honey; let them boyl a little, and then ſprinkle in the following Powders, of Turbith finely powdered four Ounces, of Scammony prepared one Ounce and an half, Ginger, Galingal, Wood of Aloes, Cinnamon, Mace, the Leaves of Rue dryed, Pepper, the Seeds of Fennel and Daucus, each two Drams; make an Electuary according to Art. It purges Flegm and Choler. The Doſe is from half an Ounce to one Ounce.

The ſolutive Electuary of Prunes.

Take of the Pulp of Prunes that are acid and ſweet, thickened, one Pound; of the Pulp of Tamarinds and Caſſia diſſolved in the Decoction of Prunes, each two Ounces; of clarified Sugar two Pound; boyl them to a Thickneſs, and then ſprinkle in the following Powders. Take of Scammony prepared two Ounces, of Rhubarb one Ounce, of Cinnamon half an Ounce, of the Flowers of Violets and red Roſes, of the Seeds of Cucumber and Purſlain, and of the Juice of Liquoriſh, each two Drams, of yellow Sanders and Tragacanth, each one Dram; make an Electuary according to Art. It purges only Choler. The Doſe is from three Drams to ſix.

Hiera with Coloquintida.

Take of the Pulp of Coloquintida, Agarick, Germander, Horehound, *Arabian Stœchas*, each ten Drams; Opopanax, Sagapenum, round Birthwort, the Seeds of Parſly and white Pepper, each five Drams; Cinnamon, *Indian Spiknard*, Polium, Saffron, Myrrh, each four Drams; of clarified Honey three Pound; make an Electuary according to Art. It purges Flegm. The Doſe is from half an Ounce to ſix Drams.

Hiera Picra.

Take of lucid Soccotrine Aloes one Pound and an half; an Ounce of Cinnamon, Wood of Aloes, the Roots of Aſarabacca, *Indian* Spicknard, Saffron, Maſtich, each ſix Drams; of clarified Honey three times the Quantity, make an Electuary according to Art. It purges Choler and Flegm, incides, attenuates, and purges the remote Parts of the Body. An Ounce of it with a Scruple of Saffron was *Hælideus*'s Experiment for an obſtinate Obſtruction of the Courſes.

Lenitive Electuary.

Take of Raiſins of the Sun ſtoned two Ounces; of the Herbs Mercury three Handfuls; of freſh Maiden-Hair, of the Flowers of Violets, of cleanſed Barly, each one Handful; of Liquoriſh raſped, of the Seeds of Fennel, each half an Ounce; of Jujubes, Sebeſtins, each Number twenty; of Prunes, Tamarinds, each one Ounce; of freſh Roots of Polypody, of the Leaves of Sena cleanſed, each two Ounces; boyl them according to Art in a ſufficient quantity of Water; to the ſtrained Liquor add of the Pulps of Caſſia, Tamarinds, and Prunes, each four Ounces, of white Sugar one Pound,

Pound, of the beſt Honey half a Pound, of the Leaves of Sena cleanſed three Ounces and an half, of the Seeds of Aniſe three Drams; make an Electuary according to Art. It purges Flegm, Serum, Choler, Melancholy, and is good for the Diſeaſes of the Breaſt, and a Pleuriſy. The Doſe is half an Ounce or an Ounce.

Electuary of the Juice of Roſes.

Take of the Juice of freſh pale Roſes clarified, of white Sugar, each one Pound and an half; boyl them acccording to Art; towards the End, ſprinkle in of Scammony prepared one Ounce and an half; of all the Sanders, and Cinnamon well powdered, each two Drams; make an Electuary according to Art. It purges Choler and ſerous Humours. The Doſe is from half an Ounce to ſix Drams.

Venice *Treacle.*

Take of the Troches of Squills ſix Ounces; of the Troches of Vipers, Magma Hedychroy, prepared Opium, long Pepper, each three Ounces; the Roots of *Florentine* Orris, of white and light Agarick, of Cinnamon, cretick Scordium, red Roſes, the Seeds of Napi, Oyl of Nutmegs by Expreſſion, the Juice of Liquoriſh, each one Ounce and an half; of the Roots of ſweet Coſtus, five leaved Graſs, Rhaponticum, or inſtead of it, Rhubarb, *Indian* Spiknard, Ginger, woody Caſſia, the Leaves of cretick Dittany, Mountain Calaminth, Horehound, Schænanthum, *Arabian* Stæchas, *Engliſh* Saffron, white and black Pepper, the Seeds of true *Macedonian* Parſly, Myrrh, Maſculine Frankincenſe, *Cyprian* Turpentine, each ſix Drams; the Roots of Acorus, Gentian, Meum Athamanticum, Valerian, celtick Spike, the Leaves of Germander, Ground-pine, the Leaves of Malabathrum, Mountain Poly, freſh Juniper Berries, the

Seeds of Biſhop's-weed, Aniſe, the leſſer Cardamoms, St. *John*'s-wort, Seſely, Thlaſpi, the Cloves of *Pliny*; for Amomum, true bole Armenick, for Terra Lemnia, Chalcitis toaſted till it come to an Aſh Colour, Gum arabick, Sagapenum, Storax Calamite, the Juice of Hypociſtis, and of true Acacia, each half an Ounce; the Roots of ſmall Birthwort, the Flowers of the leſſer Centaury, of the Seeds of cretick Daucus, of Opoponax, Galbanum, Caſtor, Judaic Bitumen, each two Drams; a ſufficient quantity of generous *Canary* Wine to melt the Gums and Juices, of *Narbon* Honey thrice the quantity of all: Make an Opiate according to Art. It heats, dries, attenuates, kills Worms, expels Gravel; being taken in Parſly Water, it forces the Courſes, helps Concoction in the Stomach, and is an excellent Alexipharmick; it's called the Mother of Medicines, as Mithridate is the Father. The Doſe is from half a Dram to three Drams. An Ounce of it is ſeldom given, except when Poyſon has been taken, and then it ought not to be given if the Patient be under ſeven Years of Age. The older this Medicine is, the better it is.

Mithridate.

Take of *Engliſh* Saffron, Myrrh, male Frankincenſe, Ginger, white and light Agarick, *Indian* Spiknard, Cinnamon, the Seeds of Thlaſpi, each ten Drams; of the Seeds of Seſely, of ſweet Coſtus, of the Leaves of Laurel, for Malabathrum, of Scænanth, *Arabian* Stæchas, long Pepper, true Storax Calamite, Galbanum, Opoponax, the Juice of Hypociſtis, *Cyprian* Turpentine, Oyl of Nutmeg by Expreſſion, for Opobalſamum, each eight Drams; of woody Caſſia, white Poly Mountain, cretick Scordium, white Pepper, Juniper Berries, the Seeds of cretick Daucus, Bdellium, Troches Cypheos, each ſeven Drams; the Roots of Gentian and of Celtick Spike, cretick Dittany, the Seeds of true *Macedonian* Parſly,

Parſly, the leſſer Cardamoms, Fennel, red Roſes, Gumarabick, Opium prepared, each five Drams; the Roots of true Acorus, Aſara Bacca, Valerian, the Seeds of Aniſe, Sagapenum, each three Drams; Meum Athamanticum, the Seeds of St. *John*'s-wort, true Acacia, the Belly of a Schinck, each two Drams and an half; a ſufficient quantity of generous *Canary* Wine to melt the Gums and Juices, of *Narbon* Honey thrice the quantity of all: Make an Opiate according to Art. It heats, dries, forces the Courſes, expels Gravel, forces Sweat, and is alexipharmic. The Doſe is from one Scruple to two Drams.

Fracaſtorius's *Diaſcordium.*

Take of the Leaves of Scordium dried, of red Roſes, each one Ounce; of true Bole Armenick two Ounces; of the Roots of Biſtort, Gentian, Tormentil, woody Caſſia, Cinnamon, Cretick Dittany, of the Seeds of Sorrel, of Storax Calamite, Galbanum, Gumarabick, each half an Ounce; of prepared Opium, Ginger, long Pepper, each two Drams; of clarified Honey three Pound; of generous *Canary* Wine a ſufficient quantity; make an Opiate according to Art. It moderately heats and dries, is aſtringent, ſtops vomiting, forces Sweat, and is good for the Plague, and big-bellied Women who cannot bear Treacle: It is alſo an excellent Remedy for Hickops. The Doſe is from one Dram to three.

Theriaca Diateſſeron Meſues.

Take of the Roots of round Birthwort, and of Gentian, Laurel Berries, and Myrrh, each two Ounces; clarified Honey two Pound; make an Electuary according to Art. It heats, dries, attenuates, is good for cold Diſeaſes of the Head and Stomach, has an alexipharmic quality, and many prefer it before *Venice* Treacle.

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The Doſe is from two Drams to half an Ounce.

Confection of Alkermes.

Take of the Syrup of the Grains of Kermes two Pound and an half, heat it, and add of Ambar-greaſe cut ſmall two Drams; ſprinkle the following Powders with liquid Ambar, of Wood of Aloes, and Cinnamon, each ſix Drams; of Lapis Lazuli prepared, of prepared Pearls, each two Drams; of Leaf Gold one Dram; make an Electuary according to Art. It heats, dries, is cardiac, good for Fainting, an Apoplexy, and Melancholy. It is an excellent Aſtringent in a long and violent Looſneſs. It is prepared with or without Musk. The Doſe is from half a Scruple to two Scruples.

Confection of Hiacinth.

Take of Hiathinths and red Coral, each half an Ounce; of true Bole Armenick one Ounce; of the Grains of Kermes, of the Roots of Tormentil and white Dittany, of the Seeds of Sorrel, Lemons, Purſlain, of the Leaves of red Roſes, all the Sanders, of the Shavings of Ivory, each four Scruples; of the Shavings of Harts-horn three Drams; of Saphyr, Smaragd, Topaz, Pearl, crude Silk, Gold, Silver in Leaves, each two Scruples, with a ſufficient quantity of Syrup of Lemons; make an Electuary according to Art. It cools, dries, is aſtringent, ſudorific, cardiac, and expels Melancholy. The Doſe is from one Scruple to one Dram.

Philonium Meſue.

Take of the Seeds of white Henbane, and white Pepper, each twenty Drams; prepared Opium ten Drams, Saffron five Drams; the Roots of Pyrethrum, and *Indian* Spiknard, and Caſtor, each one Dram; of clarified Honey,

Honey, thrice the quantity of all; make an Electuary according to Art. It dries, is aſtringent, hypnotick, forces Urine, expels Gravel, being taken in Smallage Water; it alſo ſtops vomiting. The Doſe is from half a Scruple to half a Dram.

Nicholaus's *quieting Opiate.*

Take of the Flowers of red Roſes and Violets, each three Drams; of the Seeds of white Henbane, Lettice, white Poppy, Flea-bane, Purſlain, Scariola, of the Bark of the Root of Mandrake, of Opium prepared, Ginger, Nutmeg, Cinnamon, each one Dram and an half; of all the Sanders, of Spodium of Ivory burnt, of Tragacanth, each two Scruples, of clarified Honey, thrice the quantity of all; make an Opiate according to Art. It cools, is aſtringent, anodyne, and hypnotick. The Doſe is from one Scruple to a Dram.

Purging Powders.

Diaſena Montagnani.

TAke of the Leaves of Sena cleanſed two Ounces; of Cream of Tartar half an Ounce; of the Seeds of ſweet Fennel two Drams, of Mace, Cinnamon, Sal Gemma, each one Dram; make a Powder. It heats, dries, incides, attenuates groſs Humours, purges Melancholy, and is cephalic. The Doſe is from one Dram to one Dram and an half.

Diaturbith with Rhubarb.

Take of Gummy Turbith, Hermodactiles, choice Rhubarb, each one Ounce; of prepared Scammony half an Ounce; of white and red Sanders, Ginger, Flowers of

of Violets, each one Dram and an half; of Maſtich, Seeds of Aniſe, Cinnamon, and *Engliſh* Saffron, each half a Dram; make a Powder. It purges Flegm and groſs Humours with Choler. The Doſe is one Dram.

Galen's *ſimple Hiera.*

Take of lucid Soccotrine Aloes an hundred Drams; of Cinnamon, Wood of Aloes, the Roots of Aſarabacca, and *Indian* Spiknard, Saffron, and Maſtich, each ſix Drams; make a Powder. It purges only Choler: It heats, dries, is ſtomachic and cephalic. The Doſe is from one Dram to four Scruples.

Aromatic Powders.

Aromatic Roſe Powder.

TAke of red Roſes fifteen Drams, of Liquoriſh raſped ſeven Drams, of choice Cinnamon five Drams; of Wood of Aloes and yellow Sanders, each three Drams; of Gumarabic, Tragacanth, Mace, Cloves, each two Drams and an half; of *Indian* Spiknard, Nutmeg, the leſſer Cardamoms, Galingal, each one Dram; make a Powder. It heats, dries, atenuates, is, ſtomachic, cardiac, and cephalic. The Doſe is one Dram.

Powder of Calaminth.

Take of the Herbs Mountain Calaminth, Origanum, Pennyroyal, the Seeds of *Macedonian* Parſly, Seſely, each two Drams, Smallage, Tops of Thym, each half an Ounce; black Pepper, Seeds of Lovage, each one Ounce; make a Powder. It heats, dries, attenuates, forces Urine, and the Courſes, expels Wind, and is ſtomachic. The Doſe is one Dram.

Powder

Powder of Galingal.

Take of the Roots of Galingal, of Wood of Aloes, each ſix Drams; of the Roots of ſweet ſmelling Flag, Ginger, of Cinnamon, Mace, Cloves, white and long Pepper, the Seeds of Cummin, Lovage, the outward Barks of Oranges and Citrons dried, each one Dram and an half; the Herbs Calaminth, Mint dried, *Indian* Spike, the Seeds of Aniſe, Smallage, the leſſer Cardomoms, Carawayes, Fennel, each one Dram; make a Powder. It heats, dries, cuts, and volatilizes groſs Humours, expels Wind, ſweetens the Breath, is cephalic, cardiac, ſtomachic, alexipharmic. The Doſe is one Dram.

Simple Powder of Orris.

Take of the Roots of Florentine Orris half an Ounce; of white Sugarcandy, of the Powder Diatragacanth frigid, each two Drams; make a Powder. It heats, mollifies, attenuates, incides, and is good for a Cough. The Doſe is one Dram.

The greater Powder of Lacca.

Take of prepared Lacca, Rhubarb, *Scænanth*, each three Drams; of the Roots of round Birthwort, Aſarabacca, Coſtus, Gentian, Madder, *Indian* Spiknard, woody Caſſia, Cinnamon, Saffron, of the Herbs Savin, Hyſſop, of the thickened Juices of Wormwood, Water Agrimony, bitter Almonds, the Seeds of Biſhopsweed, Aniſe, Smallage, Fennel, Bdellium, Maſtich, Myrrh, each one Dram and an half; Pepper, Ginger, each one Dram; make a Powder. It heats, dries, incides, opens, is diuretic, and moves the Courſes. It cures a Dropſy, drives out the Meaſles and Small-pox,

and

and is ſtomachic. The Doſe is half a Dram.

The Powder called Diamargarit frigid.

Take of ſplendid Pearls three Drams; of Wood of Aloes, all the Sanders, Cinnamon, of the four leſſer cold Seeds, of white Poppy Seed, and of Myrtle Berries, of the Flowers of Bugloſs, Water Lillies, red Roſes, Violets, of crude Harts-horn, of the Bone of a Stag's Heart, of the Shavings of Ivory, each one Dram, of white and red Coral, each half a Dram; make a Powder. It cools, is aſtringent, pectoral, cardiac, and good for malignant Diſeaſes. The Doſe is one Dram.

The Powder called Diambra.

Take of the Roots of *Roman* Doronicum and Galingal, of Cinnamon, Cloves, Nutmeg, Mace, of the Leaves of Laurel, for Malabathrum, each three Drams; of Ginger one Dram and an half; of the Wood of Aloes, yellow Sanders, leſſer Cardomoms, long Pepper, each two Drams; of *Indian* Spiknard and Ambar-greaſe, each one Dram; make a Powder. It heats, dries, is cardiac, alexipharmic, ſtomachic, and is good for old Men and Women. The Doſe is one Dram.

The Powder called Dianthus.

Take of the Flowers of Roſmary one Ounce; of red Roſes, Violets, of Liquoriſh raſped, each ſix Drams; of Galingal, Zedoary, Ginger, Wood of Aloes, Cinnamon, Cloves, Nutmegs, *Indian* Spike, the Seeds of Aniſe, Dill, the leſſer Cardomoms, each four Scruples; make a Powder. It heats, dries, is cardiac, and expels Melancholy. The Doſe is one Dram.

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The Powder called Diarrhodon Abbatis.

Take of red Roſes one Ounce and an half; of white and red Sanders, each two Drams and an half; of Wood of Aloes, Gum Arabick, Tragacanth, Spodium of Ivory, each two Scruples; of the Roots of Aſarabacca, Rhubarb, *Indian* Spike, Cinnamon, Saffron, Cloves, of the Fruit of Berberries, of the Seeds of Sorrel, Aniſe, the leſſer Cardomoms, Endive, Lettice, Fennel, Baſil, Purſlain, Scariola, of the Juice of Liquoriſh, of Maſtich, each one Scruple, of crude Harts-horn, and white Pearls, each half a Scruple; make a Powder. It cools, dries, is aſtringent, cardiac, ſtomachic, and good for Conſumptions. The Doſe is one Ounce.

The Powder called Diatragacanth frigid.

Take of white Gum Tragacanth, half an Ounce; of Gum Arabick two Drams and an half; of fine Wheaten Flower one Dram; of Liquoriſh raſped, of the Seeds of Citruls, Cucmuber, Cucurbit, Melons, each half a Dram; of white Sugarcandy ſix Drams; make a Powder. We have preſcribed but a ſmall Quantity of it, becauſe the Compoſition, by reaſon of the greater cold Seeds, will not keep above three Months, which is the reaſon alſo that we have omitted them in other Compoſitions. It cools, is aſtringent, good for Conſumptions and Coughs. The Doſe is one Dram.

The Powder of the three Sanders.

Take of the three Sanders, red Roſes, white Sugarcandy, of the Seeds of Lettice, Purſlain, Scariola, each three Drams; of Rhubarb, Spodium of Ivory, Juice of Liquoriſh, each two Drams and an half; of Gum Arabic, and Tragacanth, and of fine Wheaten Flower, each

and is ſtomachic. The Doſe is half a Dram.

The Powder called Diamargarit frigid.

Take of ſplendid Pearls three Drams; of Wood of Aloes, all the Sanders, Cinnamon, of the four leſſer cold Seeds, of white Poppy Seed, and of Myrtle Berries, of the Flowers of Bugloſs, Water Lillies, red Roſes, Violets, of crude Harts-horn, of the Bone of a Stag's Heart, of the Shavings of Ivory, each one Dram, of white and red Coral, each half a Dram; make a Powder. It cools, is aſtringent, pectoral, cardiac, and good for malignant Diſeaſes. The Doſe is one Dram.

The Powder called Diambra.

Take of the Roots of *Roman* Doronicum and Galingal, of Cinnamon, Cloves, Nutmeg, Mace, of the Leaves of Laurel, for Malabathrum, each three Drams; of Ginger one Dram and an half; of the Wood of Aloes, yellow Sanders, leſſer Cardomoms, long Pepper, each two Drams; of *Indian* Spiknard and Ambar-greaſe, each one Dram; make a Powder. It heats, dries, is cardiac, alexipharmic, ſtomachic, and is good for old Men and Women. The Doſe is one Dram.

The Powder called Dianthus.

Take of the Flowers of Roſmary one Ounce; of red Roſes, Violets, of Liquoriſh raſped, each ſix Drams; of Galingal, Zedoary, Ginger, Wood of Aloes, Cinnamon, Cloves, Nutmegs, *Indian* Spike, the Seeds of Aniſe, Dill, the leſſer Cardomoms, each four Scruples; make a Powder. It heats, dries, is cardiac, and expels Melancholy. The Doſe is one Dram.

The

The Powder called Diarrhodon Abbatis.

Take of red Roſes one Ounce and an half; of white and red Sanders, each two Drams and an half; of Wood of Aloes, Gum Arabick, Tragacanth, Spodium of Ivory, each two Scruples; of the Roots of Aſara-bacca, Rhubarb, *Indian* Spike, Cinnamon, Saffron, Cloves, of the Fruit of Berberries, of the Seeds of Sorrel, Aniſe, the leſſer Cardomoms, Endive, Lettice, Fennel, Baſil, Purſlain, Scariola, of the Juice of Liquoriſh, of Maſtich, each one Scruple, of crude Harts-horn, and white Pearls, each half a Scruple; make a Powder. It cools, dries, is aſtringent, cardiac, ſtomachic, and good for Conſumptions. The Doſe is one Ounce.

The Powder called Diatragacanth frigid.

Take of white Gum Tragacanth, half an Ounce; of Gum Arabick two Drams and an half; of fine Wheaten Flower one Dram; of Liquoriſh raſped, of the Seeds of Citruls, Cucmuber, Cucurbit, Melons, each half a Dram; of white Sugarcandy ſix Drams; make a Powder. We have preſcribed but a ſmall Quantity of it, becauſe the Compoſition, by reaſon of the greater cold Seeds, will not keep above three Months, which is the reaſon alſo that we have omitted them in other Compoſitions. It cools, is aſtringent, good for Conſumptions and Coughs. The Doſe is one Dram.

The Powder of the three Sanders.

Take of the three Sanders, red Roſes, white Sugarcandy, of the Seeds of Lettice, Purſlain, Scariola, each three Drams; of Rhubarb, Spodium of Ivory, Juice of Liquoriſh, each two Drams and an half; of Gum Arabic, and Tragacanth, and of fine Wheaten Flower, each

each one Dram and an half. It cools, binds, is ſtomachic, cardiac, and extinguiſhes the Relicks of Fevers. The Doſe is one Dram.

Pulvis Liberans.

Take of true Bole Armenick, ſix Drams; of the Roots of Tormentil two Drams; of the Seeds of Sorrel, Carduus Benedictus, Citron, Coriander prepared, Endive, Rue, each one Dram and an half; of all the Sanders, of the Roots of white Dittany, each one Dram; of *Roman* Doronicum, Zedoary, Wood of Aloes, Wood of Caſſia, Cinnamon, the leſſer Cardomoms, of Flowers of Bugloſs, Saffron, Mace, Water Lillies, Roſes, Pearls, white and red Coral, Ambar, Hyacinth, Granate, the Raſpings of Ivory and Hartshorn, of Spodium of Ivory, of crude Silk cut, each half a Dram; make a Powder. It binds, dries, is alexipharmic, is excellent for the Plague, it moves Sweat, and preſerves from Putrefaction. The Doſe half a Dram to one Dram.

Nephritic Powder.

Take of true nephritic Wood, of Liquoriſh raſped, of Peach Kernels, each one Ounce; of the Seeds of Milium Solis, Saxifrage, each half an Ounce; of Smallage, Carawayes, Daucus, Fennel, Broom, the greater Bur, of Lovage, *Macedonian* Parſly, Mountain Siler, *Roman* Nettles, of the Roots of Aſarabacca, and Ginger, each two Drams; of *Indian* Spike, Schænanth, Ambar, Crabs-Eyes, each one Dram and an half; of Sal Prunella, Tartar vitriolated, each two Drams and an half; make a Powder. It heats, opens, attenuates, expels Gravel. The Doſe is one Dram.

A Powder for the Falling Sickneſs.

Take of the Roots of Male-peony, gathered at the beginning of Spring, at the decreaſe of the Moon, the Seeds of Male-peony, the Roots of white Dittany, and Miſletoe of the Oak, the ſhavings of a Mans Scull, that died a violent Death, the ſhavings of Unicorns horn, Elks hoof, each one Ounce; Oriental Pearl, the Hyacinth ſtone, red Coral prepared, each half an Ounce; the Seeds of Clovebaſil, the Flowers of Lime-tree, Bettony, Lilly of the Vallies, each two Drams; Ambar-greaſe, half a Scruple; oriental Musk, ſix Grains; of Leaves of the pureſt Gold, number fifteen; make a Powder. This Powder is excellent for the Falling Sickneſs, the Apoplexy and Palſy. The Doſe is from half a Scruple to half a Dram.

The Powder for the Bite of a mad Dog.

Take of the Leaves of Rue, Vervain, leſſer Sage, Plantain, Polypody, common Wormwood, Mint, Mugwort, Balm, Bettony, St. *John*'s-wort, the leſſer Centaury, each equal parts. Theſe Herbs muſt be gathered when they are at their Perfection, that is about *June*; they muſt be gathered when the Moon is Full, and the Weather fair. The Doſe of this Powder is half a Dram; it muſt be mixed with half a Dram of Powder of Vipers, and taken in a ſmall Glaſs of White Wine in the Morning Faſting, for nine days ſucceſively. It is alſo good to apply at the ſame time Parſly bruiſed to the Part affected.

Powder of Vipers.

Take as many Vipers flea'd as you pleaſe; Cut off their Heads and Tails, and take out their Entrails,

but ſave the Heart and Liver, dry them in the ſhade, waſh the Bodies, Hearts, and Livers in White-wine, and hang them up to dry in the ſhade; when they are quite dry, cut them very ſmall, beat them to Powder. It is very good for Scabs, Itches, and Leproſies, and for a Conſumption; half a Dram, or a Dram of it may be taken in the Morning Faſting; it may be taken for a good while together.

A Powder for a Dentifrice.

Take of the Roots of florentine Orris, Pumex-ſtone, Harts-horn burnt, red Coral prepared, Cutlebone, Cream of Tartar, all finely Powdered, each one Ounce; of oriental Musk, and Civet, each half a Scruple; of the Oyls of Rhodium, Cloves, and Cinnamon, all by Deſtillation, each two Drops; make a Powder. This does not only whiten and cleanſe the Teeth, but faſtens them, and keeps them from Rotting.

An other Powder for the ſame.

Take of fine Dragons Blood, and of *Roman* Allom burnt, both finely Powdered, each two Ounces; of oriental Musk, four Grains; mix them, make a Powder according to art; rub the Teeth with it gently, Morning and Evening.

An Oderiferous Powder for the Head.

Take of the Roots of florentine Orris, eight Ounces; of yellow Sanders, four Ounces; of Lavender Flowers, red Roſes, and Tops of Marjoram, each three Ounces; of Storax, and Benzion, each two Ounces; of ſweet Tachamahacca, and of the Flowers of Lillies of the Vallies, each one Ounce; of Cloves, Labdanum, true Acorus,

Acorus, and round Cyperus, each one Dram; Powder them grosly. The chief use of this Powder is for quilted Caps, to strengthen the Brain. It may by also worn upon the Stomach, or Heart, or put amongst Cloaths, or Linnen for the said purpose.

A Powder for the Worms.

Take of Wormseed, of the Seeds of Citron, Broom, Purslain, Colworts, choice Rhubarb, Scordium, the lesser Centaury, Gentian, Harts-horn rasped, each one Ounce; make a fine Powder. The Dose is from half a Scruple to a Dram, according to the Age. When you use it, you must add to it Mercurius Dulcis, and Scammony; the three last Dayes of the Moon are to be chosen for the use of this Powder.

A Digestive Powder.

Take of the Powder Vipers, of the Seeds of sweet Fennel, Anise and Coriander, each one Ounce; of Daucus and cretick Bishops-weed, each half an Ounce; of the outward Bark of dryed Citron, of sharp Cinnamon, each three Drams; of Cloves and Mace, each one Dram; mix an equal Quantity of white Sugar with this Powder; half a Spoonful of it may be taken after Meals; it Cherishes the natural Heat, helps Concoction expels Wind, preserves and restores lost Appetite, corrects ill Fumes from the Stomach, and Sweetens the Breath.

A Powder against Miscarriage.

Take of oriental Pearls prepared, of Unicorns Horn, and Ivory rasped, of white Ambar, red Coral prepared, Mastich, Kermes Grains, red Sanders, Lemnian Earth, and Tormentil Roots, each half an

Ounce; of Mace one Dram; of Cloves one Scruple; make a Powder; mix with it an equal Quantity of white Sugar, and ſix Leaves of fine Gold; half a Scruple, or a Scruple of it may be taken Faſting, in Syrup of Quinces, or in Broath; it alſo good for a Looſneſs, the Bloody Flux, and a Weakneſs of the Stomach.

A Powder to haſten Delivery.

Take the Teſticles of a Horſe dryed in a Oven, according to Art, of ſharp Cinnamon, the Kernels of Dates, Borax, Saffron, the dryed Leaves of Savin, each two Drams; of Troches of Myrrh, one Dram; make a Powder.

An Hyſterick Powder.

Take of the Warts growing on Horſes Legs, falling off, or being cut off in the Spring, one Ounce; of Aſſa-fœtida, the Horns and Hoof of a Goat, each one Dram; make a Powder. This Powder muſt be caſt upon live Coals and the Fume muſt be received upon the Parts affected thro' a Tunnel.

A Powder for the bloodly Flux.

Take of Lemnian Earth, Bolearmenick, red Roſes, Balauſtines, Roots of Tormentil, and Biſtort, the Tears of Dragons blood, red Coral prepared, Bloodſtone, each one Ounce; of the Seeds of Purſlain, Plantain, and Flixweed, each half an Ounce; of Cloves and Mace, each two Drams; the Doſe is from one Scruple to a Dram: It may be given in Wine, or ſome aſtringent Water, or decoction; upon extraordinary occaſions, you may mix a grain of Laudanum.

A Powder

A Powder againſt Hemorrhages.

Take of Blood-ſtone, the Kernel of the Eagle-ſtone, the Earth of Vitriol waſht, remaining after diſtillation, Bolearmenick, Franckincenſe, Horſetail, Knotgraſs, Lemnian Earth, burnt Harts-horn, Gypſum, each equal Parts; make a Powder. It ſtops the Blood of a Womans Veins or Arteries being applyed with the White of an Egg, and bound upon the part affected; it ſtops Defluxions on the Eyes, being mixed with Vinegar, and applyed to the Eyes.

A ſneezing Powder.

Take of the dryed Leaves of Marjoram, Sage, Bettony, of the Flowers of Lillies of the Vallies, each one Ounce; of the Roots of Florentine Orris, of white Hellebore, Pyrethrum, the Seeds of Roman Nigella, each two Drams; of the Tops of Pennyroyal, and creeping Thym, each one Dram; make a Powder. It is good for Apoplexies, the Falling ſickneſs, Lethargies, and other Diſeaſes of the Brain proceeding from a Cold. In extarordinary Lethargies, Drowſineſs, and ſleepy Diſeaſes, two Drams of Euphorbium may be added to the Compoſition of this Powder; but not unleſs there be very great neceſſity.

Troches

Agarick Trochiſcated.

TAke of white and light Agarick, three Ounces, with a ſufficient quantity of Canary Wine, wherein two Drams of Ginger hath bin infuſed; make Troches: They purge Flegm. The Doſe is one Dram.

White Troches of Rhasis.

Take of Ceruſs waſhed in Roſe water, ten Drams; of fine wheaten flower, four Drams; of Gum Arabick, and Tragacanth, each two Drams; of Camphor half a Dram; with the white of an Egg, make Troches. If you would have Opium in it, you muſt add a Dram. It dryes, binds, repels, thickens, aſſwages the acrimony of the Humours, and is uſed outwardly for Inflammations of the Eyes.

Troches of Alhandal.

Take of the white and light pulp of Coloquintida, purged from the Seeds, cut ſmall, and powdered, with a ſufficient quantity of Oyl of Roſes, ten Ounces; of Gum Arabick, Tragacanth, Bdellium, each ſix Drams; Powder them all, and with part of the Gum Tragacanth, make ſuch a quantity of Mucilage in a ſufficient quantity of Roſe water, as will make up the other Powders into a Paſt, whereof make Troches to be dryed in the ſhade. They purge powerfully, and are good for the Collick, Apoplexy, Aſthma, and Gout. The Doſe is one Scruple.

Troches of Winter Cherries.

Take of Winter Cherries, three Drams, of true Bolearmenick, one Ounce; of the Gums Arabick, and Tragacanth, of Dragons blood in tear's, of Frankincenſe, fine wheaten Flower, juice of Liquoriſh, bitter Almonds, Pine kernels, the Seeds of white Poppies, each ſix Drams; of the Seeds of Citruls, Gourds, Melons, each three Drams and an half; of the Seeds of Smallage, and Henbane, of Ambar, and prepared Opium, each two Drams; with the juice of Winter Cherries,

Cherries, make Troches. They cool, mollifie, heal Wounds, are anodyne, good for Heat of Urine, and for Ulcers of the Kidneys, and provoke Urine, and have often done a great deal of good in desperate cases. The Dose is from one Dram to two Drams.

White pectoral Troches.

Take of the whitest Sugar one Pound, of white Sugarcandy, and penidiate Sugar, each four Ounces; of the Roots of Orris, two Ounces; of fine wheaten Flower one Ounce and an half; with the mucilage of white Tragacanth, extracted in Rose water, make small Troches. They mollifie, thicken, cleanse, are good for a Cough, and a roughness of the Mouth. One Dram of them is to be held in the Mouth, till it dissolves.

Troches of Cappers.

Take of the Bark of the Root of Cappers, of Gum Ammoniacum, of the Seeds of the Chast Tree, each six Drams; of the Seeds of Water-cresses, and Nigella, of the Leaves of Calaminth and Rue, of the Roots of Acorus, and round Birthwort, of bitter Almonds, of the juice of water Agrimony thickned, each two Drams; of the Roots of round Cyperus, of the Leaves of Scolopendrium, each one Dram. Make Troches with the foresaid Ammoniacum dissolved in Vinegar. They heat, dry, soften, open, and are good for obstructions of the Spleen. The Dose is from one Dram to half an Ounce.

Trochisci Cypheos for Mithridate.

Take of the Pulp of white and fat Currants, Cyprian Turpentine, each three Ounces; of Myrrh,

and Schenanth, each one Ounce and an half; of Cinnamon, half an Ounce; of the Roots of true Acorus, round Cyperus, *Indian* Spicknard, woody Caſſia, Juniper Berries, Bdellium, each three Drams; of Wood of Aloes, two Drams and an half; of Saffron, one Dram; of the beſt Honey clarified, of Canary Wine, each a ſufficient quantity to make Troches. They heat, dry, attenuate, heal, are Sudorifick, Cardiack, Alexipharmick. The Doſe is one Dram.

Trochiſci Hedychroi for Treacle.

Take of yellow Sanders, of the herbs Marjoram, Syriack Marum, of the Roots of Aſarabacca, each two Drams; Acorus, ſweet Coſtus, Pontick Phu, Wood of Aloes, Cinnamon, Schenanth, Oyl of Nutmegs, each three Drams; Wood of Caſſia, *Indian* Spicknard, Laurel Leaves, Saffron, Myrrh, each ſix Drams; Gillyflowers of Pliny, one Ounce and an half; Maſtich, one Dram, Canary Wine, a ſufficient quantity, to make Troches; dry them in the ſhade, and Oyl them over with the Oyl above mentioned. They heat, dry, open, are Diaphoretick, Sudorifick, and Alexipharmick. The Doſe is from half a Dram to three Drams.

Trochiſci Aliptæ Moſchatæ.

Take of pure Labdanum, three Ounces, of Storax Calamite one Ounce and an half; of red Storax, one Ounce; of Wood of Aloes, two Drams; of Ambar, one Dram; of Camphor, half a Dram, of Musk, half a Scruple; with a ſufficient quantity of Roſe water, make Troches. They are hot and dry, they attenuate, incide, are good for an Aſthma, and for the vomiting up Milk. They ſtrengthen, and are uſed for Fumes. The Doſe is from one Scruple to half a Dram.

Trochiſci

Trochiſci Galliæ Moſchatæ.

Take of Wood of Aloes, five Drams; of Ambar, three Drams; of Musk, one Dram; of the Mucilage of Tragacanth extracted with Roſe water, a ſufficient quantity; make Troches. They heat, dry, attenuate, comfort the Heart, Brain, and Stomach, and yield a ſweet Smell, and are uſed for Fumes.

Troches of Myrrh.

Take of choice Myrrh, three Drams; of Lupins cleanſed, five Drams; of the Roots of Madder, of the Leaves of Horſe-mint, Penny-royal, Rue, of the Seeds of Cummin, Aſſafœtida, Sagapenum, Opoponax, each two Drams; with Syrup of Juice of Mugwort, make Troches. They heat, dry, open, incide, expell the Courſes, and Secundine. The Doſe is from two Drams to three.

Troches of Rhubarb.

Take of choice Rhubarb, ten Drams; of the Juice of Water Agrimony thickened, half an Ounce; of the Leaves of red Roſes, three Drams; of the Roots of Aſarabacca, Madder, *Indian* Spicknard, of the Leaves of Wormwood, of the Seeds of Aniſe, and Smallage; each one Dram; of bitter Almonds half an Ounce; with the juice of *Roman* Wormwood, make Troches. They heat, dry, attenuate, open, purge gently, are good for a Dropſy, Cachexy, and Jaundice. The Doſe is from one Dram to three.

Renodæus's *Troches for a Gonorrhea.*

Take of the Seeds of the Chaſt Tree, of Roſes, Balauſtines,

Balauſtines. each half a Dram; of the Shavings of Ivory, and Ambar, each one Dram and an half; of Bolearmenick waſht in Knot-graſs Water, two Drams; of the Seeds of Plantain, four Scruples; of Saſſafras, two Scruples; with the Mucilage of the Seeds of Quinces extracted in the Water of Water-lillies; make Troches. It cools, dries, and is aſtringent. The Doſe is from one Dram to two Drams.

Troches of Squills for Treacle.

Take a freſh clear Squill, the outward Bark, and woody Root being taken out: Cover it with Wheaten Paſt, and roaſt it under the Aſhes, or bake it in an Oven, till the Parts grow cruſty, and afterwards with a pointed ſmall Stick, pierce thro' the body of the Squill; then ſeparate the Cruſt from it; take of the ſoft and fine Marrow of the Squill, one Pound; of the Flower of Lupins, eight Ounces; mix them, and make Paſte of them, and dry them in the ſhade. It dries, incides, is thoracick, and alexipharmick. The Doſe is from one Dram to two.

Troches of ſealed Earth.

Take of ſealed Earth, or in ſtead of it, true Bolearmenick, half an Ounce; of true Acacia, Hypociſtis, Dragons Blood in Tears, Gum Arabick toaſted, fine Flower toaſted, Blood-ſtone, red Coral, Ambar, Spodium of Ivory, Balauſtins, red Roſes, Seeds of red Roſes, Seeds of Purſlain toaſted, Cyperus Nuts, Harts-horn burnt, maſculine Frankincenſe, Saffron, prepared Opium, each two Drams; the Seeds of black Poppies, Pearls, Gum Tragacanth, each one Dram and an half; with the Juice of Plantain, make Troches. They cool, dry, are aſtringent, good for ſpitting of Blood, all Hemorrhagies, and great fluxes of the Courſes,

Courſes. The Doſe is half a Dram with the Juice of Plantain.

Troches of Vipers for Treacle.

The beſt Vipers are to be had at *Venice*, or *Padua*. The Troches are prepared of the fleſh of Vipers, and Bread twice baked, both bruiſed in a Mortar, and made into Troches. But how the Vipers are taken, how they are killed, and how the Troches are made, you may ſee in *Hoffman*. They are alexipharmick; they cure the Bites of Vipers, the Leproſy, and other Diſeaſes of the Skin; but they are rarely in uſe alone.

Pills.

Pills Aloephangin.

TAke of the Roots of Acorus, Aſarabacca, *Indian* Spicknard, Wood of Aloes, and yellow Sanders, Cinnamon, Mace, and Nutmegs, Cloves, Juniper berries, Cubebs, the leſſer Cardomoms, Schænanth, each half an Ounce; red Roſes, Wormwood, each two Drams; of theſe extract a Tincture, with Spirit of Wine, in a Glaſs well ſtopt, wherein diſſolve of clear pure Aloes, one Pound; then gently evaporate over hot Aſhes the Spirit of Wine, and bring it to the conſiſtence of Pills; towards the end add, of Myrrh, and Maſtich powdered, each half an Ounce; of Saffron, two Drams; make a Maſs: They heat, dry violently, attenuate, incide, purge Choler, and Flegm; are cephalick, and peculiarly proper for old Men. They are alſo good for the Colick, and Wind. The Doſe is from one Dram to two Drams.

Pills of Agarick.

Take of Agarick trochiſcated, three Drams; of Gummy

Gummy Turbith, five Drams; of the Powder of *Galen's* ſimple Hiera half an Ounce; of the Troches of Alhandal, of Myrrh, each two Drams; of Maſtich, the Roots of Florentine Orris, the Leaves of Horehound, each one Dram; with Canary Wine make a Maſs. They heat, dry, purge Flegm, are good for the Head, the Breaſt, the Cough, Aſthma, a Coma, Catarrh, and Giddineſs. The Doſe is from half a Dram to four Scruples.

The Golden Pill.

Take of clear Aloes, Scammony prepared, each five Drams; of red Roſes, and the Seeds of Smallage, each two Drams and an half; of the Seeds of Aniſe, and Fennel, each one Dram and an half; of Saffron, Maſtich, the Troches of Alhandal, each one Dram; with Honey of Roſes make a Maſs. They purge Choler, and Flegm; they attenuate, incide, heat, and dry. The Doſe is from one Dram to four Scruples.

Pill Coch

Take of the Powder of *Galen's* ſimple Hiera, ten Drams; of Troches of Alhandal, three Drams and an half; of Scammony prepared, two Drams and an half; of Gummy Turbith, and the Flowers of Stæchas, each five Drams; with Syrup of Stæchas make a Maſs. They heat, dry, purge ſtrongly Flegm and Choler. They are commonly counted cephalick. The Doſe is from two Scruples to four.

Pill of Houndſtongue with Caſtor.

Take of the Roots of Houndſtongue dryed, of the Seeds of white Henbane, of Opium prepared, each half an Ounce; of Myrrh ſix Drams; of male Frankincenſe, five Drams; of Saffron, Caſtor, and Storax Calamite, each two Drams; with Roſe-water make a Maſs. They cool, dry, bind, thicken, are anodyne, and narcotick. The Doſe is five Grains.

The

The true Catholick extract.

Take of the Pulp of Coloquintida, ſix Drams; of white Agarick, black Hellebore, Jalap, and Turbith each four Ounces; Powder them all groſly, or cut and bruiſe them, and make a Tincture in ſix Quarts of rectified Spirit of Wine. Digeſt them fourteen nights and days, and ſhake the Glaſs ſometimes; gently pour off the Tincture, and ſtrain it, thro' a linnen Rag. To the ſtrained Liquor add of fountain Water a Quart, and the whole Liquor will turn Milky, which diſtill in a Bath till only a Quart be left behind: Take the Glaſs out of the Bath, whilſt it is warm, and pour out the reſidue of the Water, with the Reſine into a new glazed Pan, and evaporate over a gentle fire to the conſiſtence of Honey: Afterwards add of clear Aloes powdered, eight Ounces; of Scammony ſulphurated, four Ounces; of Spirit of Wine rectified, four Ounces; mingle them, and evaporate them over a gentle fire to the conſiſtence of an extract fit to make Pills. It is a true catholick Purge. It purges Choler, Flegm, Melancholy, Serum, without any gripes. The Doſe is from fifteen Grains to a Scruple.

The greater Fætid Pill

Take of Troches of Alhandal, clear Aloes, Ammoniacum, Opoponax, Sagapenum, Myrrh, Dodder of Thym, the Seeds of Rue, each five Drams; of prepared Scammony, three Drams; of the Roots of Gummy Turbith, four Drams; of the leſſer Spurge, and Hermodactiles, each two Drams; of Ginger one Dram and an half; of *Indian* Spicknard, Saffron, Caſtor, each one Dram; of Euphorbium powdered, two Scruples; with the Juice of the Leaves of Leeks make a Maſs. They heat, dry, open, purge Flegm and Choler, force the Courſes, purge the moſt remote parts of the Body, and are good for the Colick, Itch, and all cutaneous Diſeaſes. The Doſe is from two Scruples to a Dram.

Bontius's

Bontius's *hydropick Pill.*

Take of the beſt Aloes, two Drams and an half; Gum Gotte diſſolved in Malago Wine, one Dram and an half; Diagrydium prepared the ſame way, one Dram; Gum Ammoniacum, one Dram and an half; Tartar vitriolated, half a Dram; with a ſufficient quantity of Syrup of Roſes ſolutive, make a Maſs. They purge Serum plentifully, and open, and reſolve. The Doſe is one Scruple.

Pills of Hiera with Agarick.

Take of the Powder of *Galen*'s ſimple Hiera, of Troches of Agarick, each half an Ounce; of clear Aloes, one Ounce; with Honey of Roſes make a Maſs. They purge Flegm, and Choler. The Doſe is from one Dram to one Dram and an half.

The Iliack Pill.

Take of Coloquintida, Sagapenum, each ſix Drams; Diagrydium, two Drams; with Wine make a Maſs for Pills. They purge Flegm, Choler, are good for the Cholic, Iliack Paſſion, and an Hemicrany. The Doſe is half a Dram.

The Pill of the Lapis Lazuli.

Take of the Lapis Lazuli powdered, and often waſht, ſix Drams; of Dodder of Thym, of the Roots of black Hellebore, of Agarick trochiſcated, each one Ounce; of Scammony prepared, of Sal Gemma, each two Drams and an half; of Cloves, and the Seeds of Aniſe, each half an Ounce; of the Powder of *Galen*'s ſimple Hiera, fifteen Drams; with the Juice of Fumitory make a Maſs. Theſe Pills purge Melancholy, Flegm, and Choler; and heat, dry, and open; are good for a Cancer, a Quartan Ague, and Obſtructions of the Bowels. The Doſe is from one Dram to one Dram and an half.

Laudanum Opiatum.

Take of the Tincture of Opium prepared, of Opium

um ſliced and toaſted, and powdered, and infuſed in Spirit of Vinegar, a ſufficient Quantity; evaporate it gently in a Glaſs to the Conſiſtence of Honey. Take of this Extract one Ounce, of *Engliſh* Saffron powdered, one Dram; of Caſtor powdered half a Dram: Mingle them, and gently evaporate them to the Conſiſtence of Pills. This is one of the chief Inſtruments of Phyſick, whereby the Phyſician may do great things, and gain himſelf a great Reputation, if he knows how to uſe them rightly. They eaſe the greateſt Pains, and procure Sleep, and qualifie ſharp Humours, ſtrengthen the Parts, move Sweat, ſtop vomiting, Bloody-flux, and often expel the Gravel from the Kidnies. A ſtrong Man may take a Pill weighing three Grains.

The Maſtich Pill.

Take of Maſtich half an Ounce; of Agarick trochiſcated, three Drams; of fine Aloes, ten Drams, with the Juice of Wormwood make a Maſs. They purge gently Flegm and Choler, and they are ſtomachick. The Doſe is one or two Drams.

Pills of Nitre.

Take of Salt of Nitre purified, of Euphorbium powdered, each one Dram; of Scammony prepared, of Troches of Alhandal, the Roots of black Hellebore, the beſt Aloes, Myrrh, Gum Arabick, each two Drams; with the Juice of Cabbage and Honey boyled, make a Maſs. They heat, dry, purge Flegm and Choler from the remote Parts of the Body. They are good for the *French*-pox, the Palſy, Giddineſs, and Falling-ſickneſs. The Doſe is half a Dram.

Common Peſtilential Pills.

Take of the beſt Aloes, two Ounces; Myrrh, one Ounce; Saffron, half an Ounce; with *Canary* Wine make a Maſs. It purges Choler, preſerves from the Plague

Plague and Putrefaction; is cardiac and alexipharmic: The Doſe is from one Dram to two Drams.

Pilulæ ſine quibus.

Take of fine Aloes, fourteen Drams; of prepared Scammony, ſix Drams; of Agarick trochiſcated, Rhubarb, the Leaves of Sena cleanſed, each half an Ounce; of yellow Myrobalans, two Drams; of the Herb Wormwood, of the Flowers of Violets, red Roſes, Dodder, Maſtich, Sal Gemma, each one Dram; with the Juice of Fennel, and Eye-bright make a Maſs. They purge Choler, Flegm, and Melancholy, and are cephalic. The Doſe is from one Dram to one Dram and an half.

Bontius's *Pill of Tartar.*

Take of Aloes Soccotrine, two Drams; of Gum Ammoniacum diſſolved in Vinegar, ſtrained, and thickned again, one Ounce and an half; Tartar vitriolated, one Scruple and an half; make a Maſs. It attenuates, opens Obſtructions, and purges gently. The Doſe is from two Scruples to one Dram.

Quercetan's *Pill of Ammoniacum.*

Take of the Extract of Soccotrine Aloes prepared with the Juice of Roſes, four Ounces; of pure Gum Ammoniacum, ſix Drams; of choice Myrrh, half an Ounce; of the Powder of the three Sanders, of choice Maſtich, each one Dram and an half; of Saffron, of the Salts of Aſh and Wormwood, each two Scruples: Powder the Myrrh, the Maſtich, and Saffron apart; make a fine Powder of them: Afterwards ſoften the Gum Ammoniac with a little Vinegar of Squills, in a Braſs Mortar moderately heated, and then add to it the Extract of Aloes, and afterwards all the reſt of the Ingredients. They open Obſtructions of the Liver and Spleen, and Meſentery, and cure long Agues. They cure Cachexies, and purge the Womb, and force the Courſes. The Doſe is from one Scruple to a Dram.

Hyſterick

Hyſterick Pills.

Take of Fæcula of Briony, choice Myrrh, Vitriol of Steel, Salt of Mugwort, each two Drams; of choice Caſtor, Rue, Camphor, each two Scruples; of the ſoft Extract of Aloes, made with the Juice of Mugwort, ten Drams. Beat the Caſtor with the Rue and Myrrh; the Camphor muſt be mingled with them, being powdered with a Drop or two of Spirit of Wine; then add the reſt of the Ingredients. Theſe Pills ſuppreſs Vapours, and open Obſtructions of the Courſes. The Doſe is half a Dram.

Meſenterick Pills.

Take of the Extract of Aloes, made in the Juice of Fumitory, of choice Gum Ammoniacum, each one Ounce; of opening Saffron of *Mars*, and of Diagrydium, each half an Ounce; of choice Myrrh, Saffron, and Salt of Tamarisk, each two Drams; of *Riverius*'s Salt of Steel, two Scruples: Make a Maſs for Pills. Theſe Pills open Obſtructions of the Meſentery. They cure Cachexies, Dropſies, and open Obſtructions of the Womb. The Doſe is from one Scruple to one Dram.

The Mercury Pill.

Take of choice Rhubarb, of the Troches of Alhandal, Diagrydium, Murcurius Dulcis, each one Ounce; of *Venice* Turpentine, diluted with Oyl of Turpentine, a ſufficient Quantity; make a Maſs for Pills. Theſe Pills are chiefly uſed for the Cure of Venereal Diſeaſes. They draw the virulent Humours from all Parts of the Body, and evacuate them by Stool: But ſometimes they cauſe a Salivation in weak Perſons. The Doſe is from one Scruple to two.

Pills to ſtop a Gonorrhea.

Take of the Roots of Biſtort, Tormentil, Water Lilly, Ivy Berries, Seeds of Lettice, Rue, Chaſt-Tree, Ambar, Goats Blood, Maſtich, Olibanum, Dragons Blood in Tears, Nutmegs, each half an Ounce. You

muſt beat together in a Braſs Mortar all the Ingredients, ſave the Maſtich, which muſt be beat by it ſelf; then heat the Mortar, and incorporate them with *Venice* Turpentine. Theſe Pills are taken Morning and Evening for many Days faſting. The Doſe is from half a Dram to a Dram.

Pills for a virulent Gonorrhea.

Take of diaphoretick Antimony, newly prepared, of native Cinnabar, and Cinnabar of Antimony, ſealed Earth, Florentine Orris, Liquoriſh, white Ambar, Crabs-eyes prepared, each half an Ounce; of choice Myrrh, Olibanum, Maſtich, and Saffron, each two Drams. You muſt chuſe the fineſt Mineral Cinnabar, and that which is moſt weighty. Grind the Ambar and Crabs-eyes upon a Porphyry Stone; Powder apart the Myrrh, Maſtich, Olibanum, Saffron, Cinnabar Mineral, Cinnabar of Antimony, and diaphoretick Antimony: Beat together in a Braſs Mortar the Roots of Orris and Liquoriſh; and having ſifted, and well mingled them, heat the Peſtle and Mortar moderately hot, and incorporate all the Ingredients with Turpentine. Note, theſe Pills, nor any other aſtringent Medicines can be ſafely uſed, before the Body hath been ſufficiently purged. Afterwards they may be taken Morning and Evening, for many Weeks. The Doſe is half a Dram.

Pills of boyled Turpentine.

Take of *Venice* Turpentine, boyled till it is hard in Radiſh Water, or in the Water of Winter Cherries, four Ounces; of Liquoriſh cleanſed, and finely powdered, one Ounce; boyl the Turpentine over a ſoft Fire, in the diſtilled Water of Radiſhes, or Winter Cherries, or in any other Plant that forces Urine, till it be ſo hard, that you may make it into Pills. Then pour away all the Water from the Turpentine, and before it is cold, incorporate with it the Liquoriſh finely powdered. Theſe Pills force Urine when it has been

been ſtopt by Flegm, and Gravel, or by the *French* Diſeaſe. They are alſo good at the Beginning of a Gonorrhea, to make it run. One Dram or two of it may be taken ſeveral Days together.

The Pill for the Cholick.

Take of choice Aloes, diluted, and thickened in the Juice of pale Roſes, three Ounces; of choice Agarick, one Ounce and an half; of Extract of Rhubarb, one Ounce; of the Liver of a Wolf prepared, ſix Drams; of the Tops of Wormwood, half an Ounce; of the Powder called Diarrhodon Abbatis, Salt of Wormwood, and Nutmegs, each one Dram and an half. Note, the Liver of the Wolf muſt be taken from a Wolf newly killed; having taken out the Gall, waſh the Liver in White Wine; put it into a glazed earthen Pot, the Cover being well luted, and ſet it into an Oven after the Bread is drawn; let it continue there for ſome Hours; then uncover the Pot, and turn the Liver; cover it again, and lute it as before, and place it in the Oven after the Bread is drawn, and let it ſtand as long as at firſt, and ſo do till the Liver be quite dry. Beat in a Braſs Mortar the Wormwood with the Agarick and Nutmegs, and the Wolf's Liver, and having ſifted the Powder, heat the Mortar and the Peſtle, and melt in it by degrees the Extract of Aloes and Rhubarb, and incorporate them afterwards with as much Syrup of Succory, as will make the whole Maſs of a good Subſiſtence. Theſe Pills gently purge Choler, and ſerous Humours, and cure the Cholick; one of them being taken every other Day, till the Patient is well. Theſe Pills keep the Body open, and evacuate gently and inſenſibly the ill Humours. A Dram of them may be taken at a time, when you deſign to purge ſtrongly.

Poterius's *Catholick Pill.*

Take of Soccotrine Aloes, half an Ounce; of choice Myrrh, two Drams; of choice Maſtich, one Dram;

of Saffron half a Dram; of white Flowers of Antimony, one Dram. Powder all the Ingredients apart, ſift them thro' a fine Sieve, and incorporate them with Syrup of Roſes ſolutive. They are commended for the Cholick, Giddineſs, and Falling-ſickneſs. The Doſe is from fifteen Grains to twenty four.

Oyls prepared by Expreſſion.

Oyl of Sweet Almonds.

TAke what Quantity you pleaſe of Sweet Almonds dried, beat them ſmall, and put them into a courſe Canvaſe Bag; preſs out the Oyl in a Preſs without Fire. It is temperate, mollifies, is anodyne, and nouriſhes conſumptive People. The Doſe is from half an Ounce to an Ounce. The following Oyls are made in the ſame manner. Oyl of bitter Almonds, which heats, dries, incides, cleanſes, mollifies, is diuretic, and kills Worms.

The Oyl of the Seeds of Lettice is made the ſame way, which cools, and cures a Gonorrhea. Oyl of the Seeds of Henbane promotes Sleep, the Temples being anointed with it, ſtops a Gonorrhea, and the Courſes, the Loins being anointed with it. It eaſes the Pain of the Ear being dropt into it, and the Pain of the Teeth, the Tooth being ſtopt with Lint dipt in it. It cools, and dries. True Oyl of Laurel, which is brought from the Fortunate Iſlands, heats, dries, diſſipates, and mollifies. Oyl of Mace heats, dries, is nephritic, and good for the Cholick. Oyl of Walnuts, heats, dries, diſcuſſes, cures the Cholick, the Itch, and is good for the Gout. Oyl of Eggs, heats, moiſtens, is anodyne, and vulnerary. Oyl of ripe Olives, heats, moiſtens, cleanſes, moves vomiting, is vulnerary, and anodyne. Oyl of unripe Olives, called Omphacine, cools, dries, and is aſtringent. Palm Oyl is brought from the *Indies*; it cools, and ſerves inſtead of

of Oyl of Roſes. Oyl of the Seeds of Rocket, heats, dries, provokes Venery. Oyl of Flax, is temperate, mollifies, and ripens. Oyl of Nigella, heats, dries, opens, is diuretick, and uterine. Oyl of Poppies, cools, moiſtens, promotes Sleep, is anodyne, and narcotick.

Oyls prepared by Infuſion and Decoction.

Oyl of Wormwood.

TAke of the Tops of Wormwood cut, and bruiſed, four Ounces; Omphacine Oyl, three Pints; infuſe them fifteen Days in a Glaſs, in the Sun, or in ſome hot Place, repeating thrice the Infuſion of Wormwood; and to the laſt Infuſion add of the Juice of Wormwood, four Ounces. Boyl them to the Conſumption of the Juice. It heats, dries, kills Worms, and is ſtomachic.

Oyl of the Leaves and Flowers of Dill.

It heats, moiſtens, mollifies, and reſolves. Oyl of the freſh Flowers of Camomile, heats moderately, and is anodyne; it is called by Surgeons the Holy, or Bleſſed Oyl. Oyl of Quinces cools, binds, ſtops vomiting, and a Looſneſs, and the Bloody-flux. Oyl of the Tops and Flowers of St. *John*'s-wort, heats, dries, attenuates, is anodyne, vulnerary, and is good for Burns. Oyl of Jaſmine mollifies, digeſts, is good for a Scirrhus, a Pleuriſy, an Aſthma, and a cold Catarrh, being outwardly uſed. Oyl of the Flowers of Wall-flower heats, dries, attenuates, digeſts, is anodyne; kills Worms, and moves the Courſes. Oyl of the Flowers of Lilly of the Vallies, heats, dries, mollifies, is anodyne. Oyl of Marjoram heats, dries, attenuates, moves the Courſes, and is cephalic. Oyl of criſped Mint heats, dries, ſtrengthens, and ſtops vomiting; ſo does Oyl of Nep: Oyl of the white Flowers of Water-Lillies cools, moiſtens is anodyne.

Oyl of Roſes compleat, made of Roſes full blown, and ripe Oyl, cools, binds, repels, ſtrengthens, and is anodyne. Oyl of Roſes omphacine is made of red Roſes not full blown, and omphacine Oyl; it cools powerfully, binds and ſtrengthens, and is anodyne. Oyl of Rue heats, dries, and is good for the Cholick. Simple Oyl of Scorpions mixed with Oyl of bitter Almonds expels the Stone of the Bladder and Reins, the Loins, Pubes, and Peritonæum, being anointed with it. It is alſo good for venemous Bites. Oyl of the Leaves, and Berries of Night-ſhade mixed with the Oyl of Roſes Omphacine, cools, moiſtens, binds. Oyl of the Leaves of ſweet Trefoil, mollifies, ripens, is vulnerary, and cures a Rupture. Oyl of the Flowers of Violets made with Omphacine Oyl, cools, moiſtens, mollifies, and is thoracick. Oyl of Mullein heats, dries, mollifies, is thoracick, good for the Gout, and the Piles. I ſay nothing of the Compoſition of theſe Oyls, becauſe it is well known.

Oyl of Cappers.

Take of the Bark of Roots of Cappers, one Ounce; of the Bark of Tamarisk, of the Roots of Cyperus, of the Seeds of Agnus caſtus, of the Leaves of Scolopendrium, or of Ceterach, each two Drams; of Rue, one Dram; of Wine Vinegar, and the beſt Wine, each two Ounces; of ripe Oyl one Pint. Boyl them in a double Veſſel to the conſumption of the Oyl and Vinegar; ſtrain them. It attenuates, opens, and mollifies a Scirrhus.

Oyl of Caſtor.

Take of Caſtor, Storax, Calamite, Galbanum, Opoponax, Euphorbium, Woody Caſſia, the Roots of Coſtus, of Cyperus, of Pellitory of *Spain*, and of *Indian* Spicknard, of the Leaves of Savin, of Saffron, Schænanth, Cubebs, black and long Pepper, each two Drams; of Oyl, three Pints; of odoriferous Wine, a Quart; powder thoſe things that ought to be powdered,

ed, and infuſe them all in Wine for a natural day; boyl them with Oyl in a double Veſſel to the conſumption of the Wine; then ſtrain it out. It heats, cleanſes, attenuats, moves the Courſes, and the Belly, is good for the Spine of the Back, and for the Nerves, being uſed outwardly and inwardly. The Doſe is one Dram.

Oyl of Saffron for the Plaſter of Frogs.

Take of *Engliſh* Saffron, Cardamoms, the Roots of Acorus, each one Ounce; Myrrh, half an Ounce; infuſe them in Vinegar for ſix days. Then add of Oyl of Olives, one Pint and an half: Boyl them with a gentle fire till all the Vinegar is conſumed; then ſtrain them. It heats, attenuates, mollifies.

Oyl of Euphorbium.

Take of Euphorbium, half an Ounce; of the Oyl of Wall-flowers, and odoriferous Wine, each five Ounces; boyl them to the conſumption of the Wine. It heats, dries, diſcuſſes, attracts, is good for the Noiſe of the Ears, and cures Baldneſs.

Oyl of Orris.

Take of the freſh Roots of Orris bruiſed, half a Pound; of the freſh Flowers of sky-coloured Orris, one Pound; of the Decoction, or Juice of other Roots of Orris, one Pint; of Oyl of Olives, three Pints and an half; boyl them in a double Veſſel to the conſumption of the Liquor; ſtrain them. It heats, attenuates, mollifies, cures Convulſions, Noiſe of the Ears, Obſtructions of the Lungs. It cures Diſeaſes occaſioned by the eating of Muſhroms, Hemlock, and Coriander.

Simple Oyl of Earth-worms.

Take of Earth-worms waſhed in good White Wine, half a Pound; of Oyl of Olives, two Pound; of White VVine, four Ounces; boyl them to the conſumption of the VVine; ſtrain them out. It heats, moiſtens, is anodyne.

Oyl of Maſtich.

Take of choice Maſtich, three Ounces; of Oyl of Roſes, one Pint; of odoriferous VVine, two Ounces; boyl them to the conſumption of the VVine in a double Veſſel; ſtrain them out. It heats moderatly, is aſtringent, ſtrengthens, cleanſes the Face, and is ſtomachick.

Oyl of the Mucilages.

Take of the freſh Roots of Marſh-mallows cut, four Ounces; of freſh Squills bruiſed, four Ounces; of the Seeds of Fenugreek, and Flax whole, each one Ounce and an half; infuſe them in a ſufficient quantity of VVater; then boyl the VVater gently, till it becomes thick, and Mucilaginous. Then add of the Oyls of Dill, Camomile, and white Lillies, each ſixteen Ounces; boyl them together to the conſumption of the watry humidity; ſtir it about now and then to keep it from burning. It heats, moiſtens, diſſipats, opens, and is anodyne.

Oyl of Myrtles.

Take of the Berries of Myrtles dryed and bruiſed, half a Pound; of Omphacine Oyl, one Pint and an half; of rough red VVine, four Ounces; infuſe them, and afterwards boyl them to the conſumption of the VVine; then ſtrain them out. It cools, dries, conſolidats, is thoracick, nervine, and being uſed with Labdanum, after the manner of an Oyntment, it hinders the Falling of the Hairs.

Nard Oyl.

Take of Spicknard, three Ounces; of the Leaves of Marjoram, two Ounces; of VVood of Aloes, and of Leaves of Laurel, of the Roots of ſweet ſmelling Flag, of Cyperus, and Elecampane, Cardamoms, Mace, Schænanth, each one Ounce and an half; of VVhite Wine, and common VVat, each fourteen Ounces; of Oyl of Olives, four Pints and an half; boyl them in

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a double Veſſel, then ſtrain them out. It heats, dries, and is anodyne.

Oyl of Foxes.

Take a Fox flea'd, and his Bowels taken out, and his Bones broken, and the Fleſh cut ſmall; boyl all in a ſufficient quantity of Sea water, or Salt water till half is conſumed; add of old Oyl, two Quarts; of the Herbs Dill, Origanum, Thym, each half a Pound; boyl them again, till the Fleſh falls from the Bones, and till the Water is conſumed; ſtrain them out. It heats, diſſipates powerfully, is good for the Nerves, and Gout.

Balſoms

Apopleptick Balſom.

TAke of Oyl of Nutmegs by expreſſion, one Ounce; of Roſin of Storax, two Drams; of *Indian* Balſom, and Ambar-greaſe, each one Dram and an half; of true Civet, four Scruples; of oriental Musk, one Dram; of Oyl of Ambar rectified, half a Dram; of diſtilled Oyl of Cinnamon, one Scruple; of the diſtilled Oyls of Lavender, Marjoram, Rue, Cloves, each fifteen Grains; of the diſtilled Oyls of Citron, Oranges, Rhodium wood, each half a Scruple; of Agate, ſix Grains. Powder the Musk and Ambar-greaſe in a braſs Mortar; mix with them a drop of ſome of the diſtilled Oyls; melt the Oyl of Nutmegs in a Spoon over a gentle fire; and when it is melted, and is half cold, incorporate with it the Storax, the *Indian* Balſom, the Musk, and Ambar-greaſe; then add the Civet, and the diſtilled Oyls; mix them well, and make a Balſom. This is a great remedy for Apoplexies, and all Diſeaſes of the Brain, and is much commended for its pleaſant Smell, and is a great preſervative againſt ill Smells, and a peſtilential Air; for Diſeaſes of the Brain; the Temples and Sutures of the Head may be anointed

anointed with it, or it may be put into the Ears with Cotton.

Hypnotick Balſom.

Take of Oyl of Nutmegs by expreſſion, and of Populeon Oyntment, each one Ounce; of Deers Marrow, Oyl of Roſes and Water Lillies, each three Drams; Oyl of Henbane-ſeed by expreſſion, Oyl of white Poppies, extract of Opium and Saffron, each two Drams; of Ambar greaſe, Musk, Civet, and diſtilled Oyl of Rhodium, each eight Grains; moiſten the extracts of Opium and Saffron with a little Spirit of Wine; then incorporate them by degrees over a gentle fire with the Oyl of Nutmegs, Deers Marrow, and Populeon Oyntment; then add the Oyls; and laſtly the Ambar-greaſe powdered, and incorporated with the Civet. This Balſom provokes Sleep gently, and eaſes pains of the Head occaſioned by continued Fevers. You may put a ſmall quantity of it up the Noſtrils, and into the Ears; or you may anoint the Temples, Wriſts, and Soles of the Feet with it.

Stomachick Balſom.

Take of Oyl of Nutmegs by Expreſſion, two Ounces; of the Oyls of Wormwood, Maſtich, Nard, and white Wax, each ſix Drams; of the Oyls by Diſtillation of Wormwood, criſped Mint, Cinnamon, Cloves, Thym, and Mace, each one Dram: Melt the white Wax, and the Oyl of Nutmegs over a gentle Fire, when they are melted take them from the Fire, and incorporate the Oyls. This Balſom fortifies and heats the Stomach, ſtops vomiting, quickens the Appetite, helps Digeſtion, eaſes the Pain of the Stomach, the Cholic, the Gripes, and the Bloody-flux. It is alſo very good for Diſeaſes of the Brain, and Nerves, the Parts being anointed with it.

Uterine Balſom.

Take of Goats Suet, of the Tears of Galbanum and Aſſa-fœtida, of the Fat contained in the Caſtors Cyſtis, one

one Dram and an half; of the diſtilled Oyls of Ambar, Jet, Rue, and Savin, each two Drams. Incorporate the Fat of the Caſtor, and the diſtilled Oyls, with the reſt of the Ingredients, excepting the Goats Tallow, which you muſt firſt melt, and when it is half cold again, mix it with the reſt. It aſſwages Pains of the Womb, and cures the Vapours, being applyed hot to the Pit of the Navel, and covered with a Walnut Shell. A little of it may be taken up the Noſtrils, and the Out-ſide of the Throat may be anointed with it. It is alſo good to provoke the Courſes.

A Balſom to make the breeding of the Teeth eaſie.

Take of freſh *May* Butter, three Ounces; of Hen and Ducks Fat, each two Drams; of the Juice of River-Crabs, drawn out with the Water of Blewbottle Flowers, of the Mucilage of the Roots of Marſh-Mallows, each two Ounces. Beat two or three River Crabs in a Marble Mortar, with a wooden Peſtle, moiſten them with a little Water of Blewbottles; preſs out two Ounces of the Juice, add to it two Ounces of the Mucilage of Marſh-mallows, the *May* Butter, the Hens and Ducks Fat; put them into a glazed Earthen Pot, and boyl them over a gentle Fire, till half the Moiſture is conſumed; then ſtrain them, and add Sugarcandy finely powdered, four Ounces; the Yolk of one Egg, Musk, and Ambar-greaſe, each ſix Grains: Mix them, and make a Balſom. It ſoftens the Gums, they being anointed with it, and if Children ſhould ſwallow it, it would do them no harm.

An excellent Balſom for the Hands.

Take of *Venice* Soap, moiſtened with the Juice of Lemons, half a Pound; white Virgin Honey, two Drams; Talk of *Venice*, Sugarcandy, the Roots of Orris finely powdered, each half an Ounce; Salt of Tartar, Borax, Sperma Cæti, each two Drams; *Indian* Balſom, one Dram; Oyls of Rhodium Wood, Cinnamon, and Cloves, each half a Scruple; oriental Musk and

and Ambar-greaſe, each twelve Grains. Cut the Soap ſmall, and put it into a glazed earthen Pan, and diſſolve it upon a gentle Fire, in two Ounces of Lemon Juice, then add the Honey, the Sperma Cæti, and the Balſom: Take the Pot from the Fire, and incorporate by degrees the Powders, and laſtly the Musk, Ambar-greaſe, and diſtilled Oyls: The Talk is eaſily powdered, being firſt laid before a quick Fire for a Quarter of an Hour, and then beaten in a Mortar heated with a hot Peſtle, and then ſifted. This Balſom whitens, cleanſes, and ſmoothens the Skin beyond any Paſte or Pomatum that can be prepared, the Hands being rubbed with it.

Oyntments.

Fernelius's *aſtringent Oyntment.*

TAke of Oyl of Roſes, often waſhed with Allom Water, one Pound and an half; of white Wax, four Ounces; of Acacia, Myrtle Berries, Balauſtins, the Barks of Acorns and Pomgranates, of unripe Galls, Sumach, Maſtich, each one Ounce. Powder them all, and infuſe them four Days in the Juices of Medlars and Sloes; then dry them over a gentle Fire, and with Oyl, and a ſufficient Quantity of Wax, make an Oyntment according to Art. It dries, cools, is powerfully Aſtringent, defends the Parts from Fluxions, contracts the Breaſts, and takes off the Wrinkles from the Belly after Child-bearing.

The Ægyptiack Oyntment.

Take of Verdegreaſe, five Ounces; of crude Allom, one Ounce; of the beſt Honey, fourteen Ounces; of ſtrong Vinegar, ſeven Ounces: Boyl them according to Art, to the Conſiſtence of an Oyntment. It eats down proud and dead Fleſh, and is good for Fiſtula's, and old Ulcers.

Unguentum

Unguentum Agrippæ.

Take of the freſh Roots of Briony, two Pound; wild Cucumber, one Pound; Squills, half a Pound; Orris, three Ounces; of the Roots of Wakerobin, Dwarf Elder, Fern, each two Ounces; of white Wax, fifteen Ounces; of Oyl, two Quarts: Make an Oyntment. It heats, dries, being applyed to the Belly, it purges by Stool. It is good for the Dropſy, and Diſeaſes of the Spleen, the Belly being anointed with it.

The white Oyntment with Camphor.

Take of Oyl of Roſes, one Pint; of white Wax, three Ounces; of Ceruſs, ſix Ounces; of Camphor rubbed with Oyl of Roſes, two Drams: Make an Oyntment. It cools, dries, cures the Itch, Burns, Puſtles, Ulcers, and other Vices of the Skin.

Simple Oyntment of Marſh-Mallows.

Take of the Oyl of the Mucilages, one Quart; of yellow Wax, half a Pound; of Roſin, three Ounces; of Turpentine, one Ounce and an half: Make an Oyntment. It heats, moiſtens, mollifies, is good for the Pain of the Side, the Pain of the Bladder, the Breaſt, and the like.

Compound Oyntment of Marſh-Mallows.

Take of the Oyl of the Mucilages, one Quart; of yellow Wax, half a Pound; of Roſin and Colophony, each three Ounces; of the Gums of Galbanum, and Ivy, and Turpentine, each one Ounce: Make an Oyntment according to Art. It heats, moiſtens, mollifies, digeſts, and cures the Hardneſs of the Nerves.

The Apoſtles Oyntment.

Take of Ammoniacum, Roſin, Turpentine, yellow Wax, each fourteen Drams; of Lytharge of Gold, nine Drams; of long Birthwort, Bdellium, Male Frankincenſe, each ſix Drams; of Galbanum, Opoponax, Myrrh, each half an Ounce; of Verdegreaſe, two Drams; of common Oyl, one Quart; of Vinegar

a ſufficient Quantity: Make an Oyntment according to Art. It heats, dries, cleanſes, takes off dead Fleſh, is good for Fiſtula's, Ulcers, and Wounds.

Unguentum Arthanitæ.

Take of the Juice of the Roots of Sow-bread, or for want of it, of the Decoction of one Pound of the Roots dried, and cut into Slices, of the Juice of wild Cucumber, of Butter, each half a Pound; of Oyl of Orris, one Pound; of the Roots of Polypody of the Oak, three Ounces; of the Pulp of Coloquintida, one Ounce and an half; of Euphorbium, two Drams: Bruiſe thoſe things that are to be bruiſed, and infuſe all for ſome Days; afterwards boyl them gently to the Conſumption of the Juices. In the ſtrained Liquor diſſolve two Ounces and an half of yellow Wax. While theſe are warm, mingle with them three Drams of Sagapenum diſſolved in Vinegar. Boyl and ſtrain, and evaporate it again to the Conſiſtence of an Oyntment; of Bulls Gall evaporated to the Conſiſtence of Honey, half an Ounce; and laſt of all, the following things finely powdered. Take of Scammony, Coloquintida, white Turbith, Aloes, Mezereon Berries, each two Drams and an half; of Euphorbium, Myrrh, the Flowers of Camomile, long Pepper, Ginger, each one Dram; Sal Gemma, two Drams: Make an Oyntment. It purges by Stool, if the Hypogaſter is anointed with it: But if the Stomach be anointed with it, it occaſions vomiting. It purges Water in the Dropſy, kills and carries off Worms, and heats, and dries much.

The Golden Oyntment.

Take of common Oyl, a Quart; of yellow Sanders, ſix Ounces; of Turpentine, two Ounces; of Roſine of the Pine, and Colophony, each one Ounce and an half; of Maſtich, and Frankincenſe, each one Ounce; of Saffron one Dram: Make an Oyntment according to Art. It heats, mollifies, cleanſes, ripens, and is anodyne.

Oyntment

Oyntment called Baſilicon.

Take of yellow Wax, black Pitch, and Roſine, each half a Pound; of common Oyl, a Quart: Make an Oyntment according to Art. It heats, dries, heals Wounds, and incarns Ulcers, and is anodyne.

Oyntment of Lime.

Take of Quick Lime, waſht according to Art, and dryed, two Ounces; of Ceruſs, two Ounces and an half; of Litharge of Gold and Silver, each three Ounces; of Tutty, two Drams; Oyl of Roſes, a Quart; of Calves Suet, eight Ounces; of the Juices of Lettice, Plantain, and Nightſhade, each four Ounces; of Oyntment of Roſes, two Ounces and an half; with a ſufficient Quantity of white Wax make an Oyntment. It cools, dries, and cures Burns.

Unguentum Diapompholigos.

Take of Oyl of Nightſhade, ſixteen Ounces; of white Wax, five Ounces; of Ceruſs waſht, two Ounces; of Pompholix prepared, of Lead burnt and waſht, of Frankincenſe, each one Ounce: Make an Oyntment according to Art. It cools, dries, is good for Ulcers, is anodyne, and breeds Fleſh, tames a cancerous Malignity, and cures Ulcers of the Legs.

Oyntment of Elecampane, with or without Mercury.

Take of the Roots of Elecampane, boyled in Vinegar, beat, and moderately dried, one Pound; of old Hogs-lard ſalted, eight Ounces; of old Oyl, four Ounces; of Quickſilver, new Wax, Turpentine waſht, each two Ounces; of common Salt, one Ounce: Make an Oyntment according to Art. It mollifies, heats, cures Venereal Nodes, the Itch, and Lice.

Unguentum Martiatum.

Take of the Herbs Wormwood, Southernwood, Baſile, Calaminth, the leſſer Centaury, Germander, Garden Coſtus, Marjoram, Water Mint, Cowſlip, Savin, Sage, the leſſer Houſleek, each one Ounce and an half; Laurel Leaves, Roſmary, Rue, each three Ounces;

Ounces; of the Seeds of Cummin, Fenugreek, the greater Nettle, each half an Ounce; of Bears Fat, Deers Marrow, liquid Storax, each three Ounces; of Butter, one Pound; of Oyl of Nutmegs by Expreſſion, one Ounce; of Oyl of Olives, two Quarts; of yellow Wax, one Pound; of good Wine, a ſufficient Quantity. The Herbs having been infuſed eight Days in Wine, make an Oyntment according to Art. It heats, mollifies, is good for cold Diſeaſes of the Nerves, for trembling, a Palſy, the Gout, and ſwelling of the Spleen.

Nerve Oyntment.

Take of Oyntment of Marſh-Mallows, four Ounces; of the Fat of Ducks, Geeſe, Dogs, Cats, each two Ounces; of the Oyls of Dill, Camomile, Laurel, Worms, Foxes, each one Ounce; of the Oyl of Euphorbium, Peter, Spike, Turpentine, each half an Ounce; of Spirit of Wine, one Ounce and an half; with a ſufficient Quantity of VVax: Make a ſoft Oyntment according to Art. It heats, moiſtens, mollifies, but is chiefly uſed for the Nerves.

An Oyntment for the Eyes.

Take of Lapis Calaminaris prepared, three Ounces; of prepared Tutty, one Ounce; of white Vitriol, and Camphor, each two Scruples; of Oyntment of Roſes, one Pound: Make an Oyntment according to Art. It cools, dries, ſtops Fluxions upon the Eyes, is anodyne, takes off Redneſs of the Eyes, a little of it being applyed to the Corners of the Eyes, and to the Eyelids.

Unguentum nutritum.

Take of Litharge of Gold finely powdered, half a Pound; of Oyl of Roſes, and Wine Vinegar, each a ſufficient Quantity, to make an Oyntment. It cools, dries, repels, breeds Fleſh, and cicatrizes Ulcers.

The pectoral Oyntment.

Take of freſh Butter, ſix Ounces; of Oyl of Sweet Almonds, four Ounces; of the Oyls of Camomile, and Violets, each three Ounces; of Ducks and Hens Fat, each two Ounces; of Roots of Orris, one Ounce; of white Wax, three Ounces: Make an Oyntment according to Art. It attenuates, digeſts, helps Expectoration, is anodyne, and eaſes the Pain of the Breaſts and Sides.

Pomatum Oyntment.

Take of freſh Hogs-lard, cleared from the Skin, and waſht in White-wine, of Sheeps Suet waſht in White-wine, each one Pound; ſixteen Apples called Pomwaters, cleanſed and boyled in Roſe Water, Rhodium Wood, Saſſafras, the Roots of *Florentine* Orris, each ſix Drams; of Benzoin, and Storax Calamite, each half an Ounce: Make an Oyntment. It heats, moiſtens, mollifies, and is good for Chaps in the Lips.

Populeon Oyntment.

Take of freſh Buds of the Poplar, three Pound; of freſh Hogs-lard unſalted, ſix Pound; the Buds of the Poplar muſt be bruiſed, and infuſed in the Lard till the following Herbs are gathered. Take of the Herbs Burdock, Henbane, Lettice, Mandrakes, black Poppies, the greater and leſſer Houſleek, Nightſhade, Violets, Navelwort, or Purſlain, the tender Tops of Brambles, each two Handfuls. Bruiſe them all, and boyl them with the Lard and Poplar Buds, till the Moiſture is conſumed, and make an Oyntment according to Art. It cools, mollifies, is anodyne, diſpoſes to Sleep, the Wriſts, Forehead, and Temples being anointed with it.

The Potable Oyntment.

Take of freſh Butter without Salt, one Pound; of the Roots of Madder, the greater Comfry, and Tormentil, each half an Ounce; of Caſtor, Dragons-Blood, Crabs-eyes, each two Drams; of red Wine

half a Pint. Boyl them to the Conſumption of the Wine, and make an Oyntment according to Art. It attenuates, opens, diſſolves coagulated Blood, and is good for Bruiſes. The Doſe is half an Ounce.

Galen's *cooling Oyntment.*

Take of Omphacine Oyl of Roſes, four Ounces; of white Wax, one Ounce: Diſſolve the Wax in the Oyl, and waſh it often with Water, and ſhake it well. Laſtly, waſh it with Roſe Water, and add a little Vinegar to it, and ſo make an Oyntment according to Art. It cool, moiſtens, and is anodyne.

Oyntment of Roſes.

Take of freſh Hogs Lard, cleared from the Skin, two Pound; of freſh pale Roſes, a ſufficient Quantity: Mix them, and ſet them in the Sun for ſome Days, then let them ferment, and ſtrain them out; to the ſtrained Liquor add the ſame Quantity of Roſes; ſet them in the Sun again; boyl them, and ſtrain them as before; repeat the Roſes till the Lard has a pleaſant Smell, and keep it for an Oyntment. It cools, mollifies, cures an Herpes, and Inflammations.

The Mundificative Oyntment of Smallage.

Take of the Leaves of Smallage, three Handfuls; of Ground Ivy, the greater Wormwood, the leſſer Centaury, Germander, Sage, St. *John*'s-wort, Plantain, Milfoil, Perwinkle, the greater and middle Comfry, Bettony, Woodbine, Vervain, Speedwel, yellow Ladies Bed-ſtraw, Knot-graſs, Adders Tongue, Burnet, each two Handfuls; of common Oyl, four Quarts; of white Pitch, Rams Suet, yellow Wax, and Turpentine, each two Pound: Gather the Herbs, if it may be, all on the ſame Day, when they are in their full Vertue, and bruiſe them in a Marble Mortar: Melt the Wax, Pitch, and Suet in a Copper Pan tinn'd within, over a gentle Fire in the Oyl; put in the bruiſed Herbs, and boyl them together gently, ſtirring the Ingredients from time to time with a wooden

wooden Spatula; and when the Moiſture is almoſt all conſumed, ſtrain, and ſtrongly preſs out the whole. When the ſtraining is cold, and ſeparated from the Fæces and Moiſture, take of choice Myrrh powdered, and of Succotrine Aloes, each four Ounces; of round Birthwort, and the Roots of Florentine Orris, each two Ounces; incorporate all theſe finely powdered with the whole, and the Oyntment is made. This Oyntment is proper to cleanſe all ſorts of Ulcers and Wounds, and diſſipate excrementitious Seroſities, and to prevent them from breeding. It is alſo eſteemed good againſt the biting of mad Dogs.

Plaſters.

Plaſter of Bettony.

TAke of the Juice of Bettony, Smallage and Plantain, each one Pint; of Wax, Gum Elemy, Roſine of the Pine, and Turpentine, each half a Pound; make a Plaſter according to art. It heats a little, and cleanſes a little, and breeds fleſh. *Foreſtus* commends it for Wounds of the Head.

Plaſter of Ceruſs.

Take of Ceruſs waſht ſome time with Rain-water, and dryed again and powdered, of Oyl of Olives, each half a Pound; of yellow Wax, two Ounces; boyl it according to art, and make a Plaſter. It cools, dries, is good for Burns, and Inflammations, for Vices of the Skin, and ſuperficial Ulcers.

The Plaſter called Diachalcitis, or Diapalma.

Take of old Oyl, Litharge of Gold, each three Pound; old Hogs Lard cleared from the Skins, two Pound; Chalcitis burnt, or of white Vitriol, four Ounces; ſtir them in boyling with the green Branches of the Palm-tree, or of the Oak, or Willow, or Medlar-tree, and make a Plaſter according to art. It dries, binds, and cleanſes, is good for peſtilential Tumours, bloody

bloody Wounds, and to cleanſe all manner of Ulcers, bruiſes black and blew, and is indeed a Plaſter of great uſe.

Simple Diachylon.

Take of the Oyl of the Mucilages, three Pints; of Litharge of Gold, one Pound and an half; make a Plaſter according to art. It cools, moiſtens, mollifies, ripens, reſolves, diſſipates, and is proper for Swellings of the Spleen, Stomach, and the like.

Diachylon with Gums.

Take of Oyl of the Mucilages, eight Pints; of Litharge of Gold, four Pound; of VVax and Turpentine, each half a Pound; of Ammoniacum, Galbanum, Opoponax, Sagapenum, each four Ounces; make a Plaſter according to art. It mollifies much, ripens, digeſts, heats moderately, and is good for old Swellings.

The Plaſter called The Grace of God; with, and without Verdegreaſe.

Take of new VVax, Roſine, Goats Suet, each four Ounces; of Turpentine, two Ounces; Verdegreaſe, Maſtich, Olibanum, each three Drams; make a Plaſter according to art. It heats, dries, cleanſes Ulcers and VVounds, and makes them heal.

The Plaſter called Gryſeum, or of Lapis Calaminaris.

Take of Lapis Calaminaris prepared, one Ounce; of Litharge, two Ounces; of Ceruſs, and Tutty, each half an Ounce; of Turpentine, one Ounce; of Frankincenſe, five Drams; of Maſtich, three Drams; of Myrrh, two Drams; of Caſtor, one Dram and an half; of Goats Suet, one Ounce; make a Plaſter according to art. It cools, dries, incarns, and cicatrizes.

Plaſter of Melilot.

Take of the Tops of Melilot, ſix Ounces; of the Leaves of VVormwood, Marjoram, of the Flowers of Camomile, of the Seeds of Fenugreek, of Laurel Berries,

ries, and the Roots of Marſh-mallows, each three Drams; of the Roots of Cyperus, Orris, and *Indian* Spicknard, of woody Caſſia, the Seeds of Biſhops-weed, Smallage, and the leſſer Cardomoms, each two Drams and an half; of Ammoniacum, ten Drams; of Bdellium and Storax Calamite, each five Drams; of Turpentine, one Dram and an half; dryed Figs, number twelve; Roſine, Goats Suet, each four Ounces; of yellow VVax, eight Ounces; of Oyl of Spike two Ounces; of Oyl of Marjoram, a ſufficient quantity. Make a Plaſter according to art. It heats, mollifies, ripens, reſolves Hardneſs, it looſens, and is very anodyne.

Plaſter of Red Lead.

Take of red Lead, one Pound; common Oyl, a Quart; boyl them according to art, and add to them of Wax, one Pound and an half; of Turpentine, four Ounces; of burnt Lead prepared, two Ounces; make a Plaſter according to art. It cools and dries Wounds, and old Ulcers, and heals them.

Plaſter of the Mucilages.

Take of Oyl of the Mucilages, ſix Ounces; of Ammoniacum, Galbanum, Opoponax, Sagapenum, each half an Ounce; of Saffron, two Drams; of yellow Wax, twenty Ounces; of Turpentine, two Ounces; make a Plaſter according to art. It heats, attenuates, mollifies, ſuppurates, draws, cleanſes, takes off an Eſchar in Burns, and is good for Swellings.

Plaſter called Oxycroceum.

Take of yellow Wax, Colophony, Ship Pitch, each ſix Ounces; *Engliſh* Saffron, two Ounces; Ammoniacum, Galbanum, Maſtich, Myrrh, Turpentine, Frankincenſe, each two Ounces; of Vinegar a ſufficient quantity to diſſolve the Gums; make a Plaſter according to art. It heats, dries, mollifies, diſcuſſes Tumours, is anodyne, good for broken Bones, and the Iſchidiack pain.

Plaſter of Frogs, with, or without Mercury.

Take of the Oyls of Camomile, Dill, Lillies, Spike, each four Ounces; of Saffron, two Ounces; of Hogs Lard, two Pound; of Calves fat, one Pound; of true Oyl of Laurel, eight Ounces; of male Frankincenſe, two Ounces and an half; Euphorbium, ten Drams; live Frogs waſht in Wine, number twelve; Earth-worms waſht in Wine, ſeven Ounces; the Leaves of Feverfew, the Flowers of Schænanth, and Stæchas, each four handfulls; the Juice of the Roots of Dwarf Elder, and Elecampane, of clear Turpentine, each four Ounces; of liquid Storax, three Ounces; of Litharge of Gold, two Pound; of quick-ſilver extinguiſhed in Turpentine, eight Ounces; of good Wine, two Quarts; of white Wax, a ſufficient quantity; make a Plaſter according to art. It heats, molliſies powerfully, takes off the pain of the Limbs, in the *French* Diſeaſe; is excellent for an humoural Rupture of the Scrotum, eſpecially if ſome Sulphur powdered be added to it.

Fernelius's *Plaſter for Ruptures.*

Take of true Acacia, long and round Birth-wort, Balauſtins, Cups of Acorns, Beans, unripe Galls, Malicorium, Myrtles, Cypreſs Nuts, the Seeds of Plantain, each half an Ounce. Powder them all, and moiſten them with Roſe Vinegar, and let them ſtand for two Days; then dry them; then take of the Roots of Comfry, Fern, Oſmund Royal, of the herb Horſtail, each one Ounce; of Aloes, Maſtich, Mummy, Myrrh, Frankincenſe, each two Ounces; of Bolearmenick waſht in Vinegar, of the Lapis Calaminaris prepared, of Litharge of Gold, and Dragons Blood, each three Ounces; of Ship Pitch, two Pound; of Turpentine a ſufficient quantity; powder them all, and with the foreſaid Powder mix them with the Pitch melted, and incorporate them exactly with the Turpentine, and ſo make a Plaſter according to art. It binds violently,

ly, dries, ſtops Fluxions, is good for Ruptures, broken Bones, and to ſtrengthen the parts.

Paracelſus's *Stiptick Plaſter.*

Take of Ammoniacum, Bdellium, each two Ounces; of Galbanum, Myrrh, Olibanum, Opoponax, the Roots of long and round Birth-wort, and of white Dittany, the Load-ſtone prepared, each one Ounce; Oyl of St. *John's*-wort, a Quart; true Oyl of Laurel, two Ounces; Litharge of Gold, one Pound and an half; yellow Wax, half a Pound; Turpentine, four Ounces. Make a Plaſter according to art. It heats, dries, cleanſes moderately, and draws.

The Cerate of Sanders.

Take of red Sanders, ten Drams; of the white and yellow Earth, each ſix Drams; of red Roſes, twelve Drams; of Bolearmenick, ſeven Drams; of Spodium of Ivory, four Drams; of Camphor, two Drams; of Omphacine Oyl of Roſes, nine Drams; of white Wax, a ſufficient quantity to make a Cerate. It cools, dries, ſtrengthens, and is very good for Inflammations.

Galen's *Stomach Cerate.*

Take of Maſtich, and red Roſes, each twenty Drams; of the Leaves of Wormwood, fifteen Drams; of *Indian* Spicknard, ten Drams; of Omphacine Oyl of Roſes, one Pint; with a ſufficient quantity of Wax make a Cerate. It cools, dries, binds, ſtops Vomiting, and ſtrengthens the Stomach.

A Sparadrap.

Take of Omphacine Oyl of Roſes, half a Pint; of Rams Suet, four Ounces; white Wax, ten Ounces; of Litharge and red Lead, each three Ounces; of Bolearmenick, Maſtich, burnt Lead prepared, of Frankincenſe, and Tutty, each one Ounce and an half; of Camphor, half an Ounce; Boyl the Litharge and red Lead together with the Oyl of Roſes, and the Suet (a ſufficient quantity of Water being added at firſt) to a due conſiſtence; than pour on the Wax melted; and

laſtly mingle the Powders, and make a Plaſter according to art; and while it is hot dip in a Linnen Cloath, and lay it upon a Plate moiſtened with Oyl of Roſes. It dries, binds, ſtrengthens, breeds Fleſh, and heals.

Plaſter of Sulphur.

Take of Ship Pitch, Roſine and yellow Wax, each twelve Ounces; of Sulphur finely powdered, and of Oyl of Camomile, each four Ounces; of Turpentine, Orris Powdered, and Cummin, each one Ounce and an half; make a Plaſter according to art. It heats, powerfully, dries, attenuates mollifies, diſcuſſes, reſolves, draws, and is good for hard Tumours.

Plaſter of Tabacco.

Take of Rams Suet, white Pitch, and Roſine, each one Pound and an half; yellow Wax, one Pound; freſh Tabacco bruiſed, three Pound; bruiſe the Tabacco leaves in a marble Mortar with a wooden Peſtle, and having boyled them with the Rams Suet, Pitch, and Roſine over a gentle Fire in a copper Pan tinned, ſtirring them from time to time, till the Moiſture of the Tabacco be almoſt conſumed, ſtrain and ſtrongly preſs forth the Compoſition; then let it cool, and having thrown away the Fæces remaining at the bottom, take of pure Gum Ammoniacum, and of Venice Turpentine, each eight Ounces; melt the Gum Ammoniac in a braſs Mortar heated, and incorporate with it the Turpentine, and mix them with the other ingredients off from the Fire; and when the Maſs is almoſt cold, make it up into Rolls This Plaſter is commended to mollifie hard internal Tumours, particularly thoſe of the Liver and Spleen, tho' they ſhould prove ſchirrhous.

Angelus Sala's *Magnetick Plaſter.*

Take of Sagapenum, Ammoniacum, Galbanum, each three Ounces; of yellow Wax, and Turpentine, each four Ounces and an half; of arſenical Magnet, three Ounces; of the Earth of Vitriol waſht, one Ounce;

of

of Oyl of Ambar, half an Ounce: After you have diſſolved the Gums in twenty Ounces of Vinegar of Squills over a moderate Fire, paſs them thro' a ſtrong Cloath, and boyl them to the ordinary conſiſtence of Plaſters; melt the Wax in a copper Pan with the Oyl of Ambar, and having taken them off the Fire, incorporate with them the Turpentine, Earth of Vitriol, and arſenical Magnet finely powdered, together with the Gums thickened, and the Plaſter is made. The arſenical Magnet is made in the following manner. Take of Hungarian Antimony, yellow Sulphur, and criſtaline Arſenick, each two Ounces; powder two Ounces of pure Antimony, as much yellow Sulphur, and as much criſtaline Arſenick, and having mingled them together, put them over a Sand Bath moderately hot; keep the Cucurbit there, till the Ingredients are altogether diſſolved, which you ſhall know by putting into the ſubſtances a ſmall Iron Rod; for then they will ſtick to the Rod like Turpentine: Then let the Matter cool; break the Cucurbit, and keep the Maſs to be powdered, when there is occaſion. The Author of this Plaſter cries it up highly, and affirms, that being applyed upon Bubo's, and peſtilential Carbuncles, it ripens them quickly, opens them, and draws at the ſame time the Venom from the Center to the Circumference. It alſo perfectly cures the Kings Evil, drawing the ſcrophulous Matter from the remote parts of the Body, and pefectly cures in five or ſix Weeks.

A Plaſter for Iſſues.

Take of Oyl of Roſes, and Roſe-water, each a Quart; of Venice Ceruſs, and Litharge of Gold prepared, each eight Ounces; boyl them according to art to a Plaſter; then add of white Wax, ſix Ounces; melt the white Wax cut into pieces, and incorporate it exactly with the reſt. This Plaſter has no ill Smell, and does not ſtick very cloſe.

The

The Marrow of Chymiſtry.

CHymiſtry, which comes from the Hebrew Word *Chema*, ſignifying an hot Star, is a contemplative and active Art: It examines all natural things; it teaches how to ſeparate the different Subſtances, which are found in mixt Bodies. *Tubal-Cain*, the eighth Man from *Adam*, was well skilled in Metallick Operations; and *Moſes* calcined the Golden Calf of the Children of *Iſrael*, and reduced it to a Powder. It is called the Hermetic Art, from the ancient *Ægyptian Hermes*, who was well skilled in Chymiſtty, and was one of the firſt Inventors of it.

As to the Principles of Chymiſtry, they are five; Water, Spirit, Oyl, Salt, and Earth; two are paſſive, *viz.* Water and Earth; the reſt are active. But to paſs by theſe things, we will treat only of ſuch Medicines as are moſt uſed, and approved in Phyſick. Firſt, we will ſet down thoſe Medicines that are made of Vitriol.

To make the Oyl and Spirit of Vitriol, the Vitriol is calcined till it is yellow, that the accidental Humidity may fly away, and then it is diſtilled in a Glaſs Retort, in the higheſt Degree of Fire for ſixty Hours, whereby the Spirit comes forth. At the Bottom remains a very acid corroſive Spirit, which ſome call falſly, the Oyl. This Diſtillation may be perfomed in a leſs Time, and to more Advantage, with a large Receiver that has a large Mouth, for ſo the Spirit will have a freer Paſſage. The honourable Mr. *Boyl* makes his *Ens Veneris* with Colcothar of Vitriol, firſt edulcorated with Rain Water, and afterwards ſublimed with a double Quantity of Sal Armoniac. This is a noble Medicine for the Rickets. The ſame Colcothar edulcorated, and reduced to a Cataplaſm with the White

White of an Egg, often cures Cancers of the Breasts not ulcerated. Pour, Drop by Drop, the corrosive Spirit into Rain Water impregnated with Vitriol, and evaporate it half away, and you'll see Streaks like Hairs; pour the anisated Balsom of Sulphur into the said Water, and you will find a red Mass like Soap. If you take Vitriol of Steel, with a double Quantity of Sal Armoniack, and proceed in the same Method, you'll have a Sublimate in Taste and Smell like *Ens Veneris*. The Styptic Water is a Solution of Vitriol and other Ingredients.

Take of Colcothar of red Vitriol, that remains in the Retort, after the Spirit is drawn out, burnt Allom and Sugarcandy, each half a Dram; the Urine of a young Person, and Rose Water, each half an Ounce; Plantain Water, two Ounces; stir them all together a good while in a Mortar, then pour the Mixture into a Viol, and when you use it, separate it by Inclination. This styptick Liquor stops Arterial Blood without Excoriation. Apply a Rag dipt in it, and hold it a while to the Part.

Some distil Vitriol of *Mars* for a Spirit, and count it a great Secret: But it is nothing else but Spirit of Vitriol regenerated. Tartar vitriolated is vulgarly made by dropping Spirit of Vitriol upon Oyl of Tartar *per Deliquium*, till it is perfectly saturated, and afterwards they dry it, then they dissolve it in Rain Water, filtrate and evaporate it, and again gently dry it for Use: But the following way of preparing it is much better.

Take green Vitriol, dissolve it in Rain Water, afterwards digest, and filtrate, then by hot Iron Plates, wholly separate the Particles of Copper from it, then filtrate it again, and drop upon it a sufficient Quantity of Spirit of Sal Armoniac, or Harts-horn; digest and filtrate it, and repeat the Operation till no Filth remains at the Bottom, then evaporate it till it

is

is dry, keep it for Uſe. The Doſe is one Scruple.

Of *Roman* Vitriol calcined, and Niter, each one Pound; of common Salt, two Pound; and of Quick Lime, half a Pound, is made Aqua Fortis, by Diſtillation. The common way of making Aqua Fortis, is with Colcothar of Vitriol, and Niter; but I ſuppoſe this is Spirit of Niter; therefore take Vitriol calcined till it is yellow, and of Niter, each equal Parts; put them both into a Glaſs Retort, and having luted on the Receiver, keep up a ſtrong Fire, as long as any Vapours appear in the Receiver. If you add Sal Armoniac, the Aqua Fortis will become Aqua Regia, which is much uſed about Metals. Take the Caput Mortuum of Aqua Fortis, and with Rain Water extract a Salt; filtrate, and criſtalize it, then grind it upon a Stone, and afterwards put the Salt into a Retort, and pour upon it the foreſaid Aqua Fortis; diſtil, and cohobate it till the whole comes over into the Receiver, and you'll have a Noctiluca like Fire. The ſame way is made the ſhining Salt, wherewith the Beard being moiſtened, appears in the Dark like Fire, by the Addition of a fine Spirit, which few know, made of one Part of Niter, and three Parts of *Engliſh* Bole, which you muſt afterwards rectifie, and keep for Uſe. The Salt extracted by the Rain Water from the Caput Mortuum, is nothing elſe but Niter, tho' ſome think it is an Alcali: So thought Dr. *Mayow*, who affirms, in his Treatiſe of Niter, that the Caput Mortuum of diſtilled Niter, is very like an Alcali Salt.

Among all the Salts, I think common Salt is the moſt excellent; this is peculiar in it, *viz.* that it crackles and makes a Noiſe when we endeavour to free it from its accidental Moiſture. It is diſtilled in the ſame manner as Niter. At the End of Diſtillation white Flowers are diſtilled in the Neck of the Retort.

Take

Take of the rectified Spirit of Salt, what Quantity you please; with Quick Lime dry it to a Powder, melt it in a Crucible, and when it is cold, powder it, and mix it with a fourth Part of Quick-Lime, and distil it in a Retort; the Spirit that comes off, will smoak continually, and white Vapours will exhale, that smell and taste pleasantly. This Spirit being taken in Broath, is good for nephritick Pains, the Dropsy, and to open Obstructions, and very friendly to the Bowels, and ferments. Vinegar being distilled, commonly the Flegm comes first, and then the acid Spirit: But the reason is because some evaporate first the half, or three Parts of it, and then distil the Residue: But if a sufficient quantity of Vinegar were distilled without previous Coction and Evaporation; they would find that a fine Spirit would ascend before the Flegm.

Put six Quarts of strong Vinegar into an Earthen Pan, evaporate in a Bath about a Quart, which is the flegmatic Part, and pour that which remains into a Glass, or Earthen Cucurbit, and distil it in a strong Sand Heat, until there remains nothing at Bottcm, but a Substance like Honey. This is the common way of distilling Vinegar. Its principal Use is to dissolve, or precipitate Bodies. It is sometimes mixed in Cordial Potions, to resist Putrefaction. The Dose is half a Spoonful. It is mixed with Water, and this Oxycrate is used inwardly to stop Bleeding, and is outwardly applyed to cure Inflammations.

Sulphur burnt under a Bell yields a very acid and corrosive Spirit.

VVillis's *Tincture of Sulphur is made in the following manner.*

Take of Sulphur, one Ounce; of Salt of Tartar, three Ounces; of *Canary* Wine, a Quart; make a Tincture according to Art. Of this Tincture is made the Syrup so famous over all *England.*

Balsom

Balſom of Sulphur is made in the following manner.

Put into a ſmall Matraſs, an Ounce and an half of Flowers of Sulphur, and pour upon it eight Ounces of Oyl of Turpentine; place your Matraſs in Sand, and give it a digeſting Fire two Hours; afterwards increaſe it a little for four Hours, and the Oyl will take a red Colour. Let the Veſſel cool, then ſeparate the clear Balſom from the Sulphur that could not diſſolve. This Balſom is excellent for Ulcers of the Lungs and Breaſt. The Doſe is from one Drop to ſix in ſome proper Liquor. You may reduce this Balſom to the Conſiſtence of an Oyntment, by evaporating ſome Part of it, and it is uſed to cleanſe Wounds and Ulcers.

If you would make Aniſeed Balſom of Sulphur, you muſt uſe the Oyl drawn from Aniſeeds inſtead of it, and proceed as before. It is more agreeable than the former, and has leſs Acrimony.

From Tartar and Salt of Niter, is diſtilled a pleaſant Spirit; which, when rectified according to the common way, is good for Obſtructions, and Gravel.

The Tincture of Salt of Tartar, which is really nothing elſe than alcalizat Particles joined with Spirit of Wine, is made in the following manner.

Take of Salt of Tartar fuſed in a Crucible, and powdered in a hot Mortar, what quantity you pleaſe; put it into a large Viol, afterwards pour upon it a ſufficient quantity of rectified Spirit of Tartar hot, and mix them well; then pour upon them Spirit of Wine, and ſhake them again, and you'll preſently have a red Tincture impregnated with Salt of Tartar, which is of a pleaſant Taſte, Smell, and Colour. This Tincture excellently diſſolves all diſtilled Oyls, and alſo Balſom of Gilead, which cannot be diſſolved by Spirit of Wine, or any other *Menſtruum*, and ſo it becomes an excellent Diuretick, Aperitive, Abſterſive, and ſtomachic Medicine, good for an Aſthma, Conſumption and Dropſy.

Spirit

Spirit of Tartar is made in the following manner.

Fill two Thirds of a Retort with Tartar groſly powdered; place your Retort in a reverberatory Furnace, and fit it to a large capacious Receiver, and begin the Diſtillation with a very ſmall Fire, for three Hours, to warm the Retort, and to drive out the Flegm Drop by Drop. Throw away this inſipid Water, and refitting the Receiver, lute cloſely the Joints; increaſe the Fire by little and little, and you'll ſee Spirits fill the Receiver with Clouds. Continue it, that the Oyl may likewiſe come forth; then, when there will come no more, let the Veſſels cool, and unlute them. Pour that which is in the Receiver into a Tunnel lined with brown Paper, that the Spirit may filtrate, and ſeparate from the thick black Oyl that remains in the Filter: Keep this Oyl in a Viol. It is good to ſmell to in hyſteric Fits, it is alſo good for paralytic Parts, and cold Pains, but its Smell is very nauſeous. Pour the Spirit into a Glaſs Cucurbit, and rectifie it by diſtilling it in Sand. It is good for the Palſy, Aſthma, and Scurvy, it works by Urine and Sweat; it is alſo uſed for hyſteric Diſeaſes, and the Falling Sickneſs. The Doſe is from one Dram to three, in ſome proper Liquor.

Fixed Salt of Tartar is made in the following manner.

Break the Retort, which ſerved you for Diſtillation of Tartar, and take out the black Maſs you find in it; calcine it until it becomes white, then put it into a a great deal of hot Water, and make a Lee, filtrate it, and pour it into a Gaſs, or Earthen Veſſel; evaporate in a Sand Heat all the Water, and there will remain a white Salt, which is called Salt of Tartar. It is aperitive, and is uſed to draw forth the Tincture of Vegetables, and to open Obſtructions.

Oyl of Tartar per Deliquium *is made in the following manner.*

Take of Salt of Tartar, what quantity you pleaſe; pow-

powder it, and tye it up in in a Rag, and hang it in a cold and moiſt Place; put a Glaſs under it to receive the Liquor, which you muſt filtrate till it is clear. It cools, cleanſes, looſens, and is good for the Itch, and to cleanſe the Skin; it cures Ulcers in the Head, and Venereal Puſtles.

The way of making Salt of Tartar with Niter is not good, for all the Tartar does not fly away.

Tincture of Coral made after the beſt manner.

Take Coral groſly powdered, diſtil it in a Retort with a violent Fire for forty Hours. In the Receiver you'll find a red and unctuous Liquor, tho' in a ſmall quantity. Bring it to the Conſiſtence of Honey, and then with Spirit of Wine, draw a red Tincture. As to the other Preparations of this Tincture, there is no depending on them, becauſe the Menſtruum is apt to grow red of it ſelf, or by the long Digeſtion, or by the Addition of Salts.

Magiſtery of Coral is made in the following manner.

Take what quantity you pleaſe of the Impregnation of Coral, either red or white, made with diſtilled Vinegar. Pour it into a Viol, or Matraſs, and drop into it the Liquor of the Salt of Tartar, made by Deliquium; a Curd will appear, which will precipitate to the Bottom, in a very white Powder. Decant the clear Liquor, and waſh the Powder five or ſix times with Water; dry it, it is that which is called the Magiſtery of Coral. It chears, and fortifies the Heart, reſiſts Poyſon, ſtops the Bloody-flux, and all other Hemorrhagies. The Doſe is from ten to thirty Grains.

Salt of Coral.

Take what quantity you pleaſe of the Diſſolution of Coral made by diſtilled Vinegar; pour it into a Glaſs Cucurbit, or Earthen Pan, and evaporate in Sand all the Moiſture: There will remain at Bottom a Salt of Coral.

Coral. Keep it in a Viol well ſtopt. It has the ſame Virtues with the Magiſtery.

Of all imperfect Metals, except Lead, a Tincture may be drawn.

Take Regulus of Antimony, Iron, Copper, Tin, in a due Proportion; fuſe, and powder them, and fire them with a ſufficient quantity of Niter. Increaſe the Fire, and keep them in Fuſion till the Maſs is betwixt a ſky and green Colour, then draw a Tincture with Spirit of VVine according to Art. This is an excellent Medicine for Chronical Diſeaſes, and Obſtructions. *Poterius*'s famous Powder is made of Niter, Antimony, and Tin. If you mix with it Roſine of Gujacum, you will have an excellent ſudorific Medicine, and which I have much experienced, ſays *Viganus*. If the Flowers of Antimony are reverberated with a violent Fire, till they are very red, you may draw a red Tincture from them with rectified Spirit of VVine.

Tincture of Antimony is made with Salt of Tartar, and Regulus of Antimony, by calcining with Fuſion of the Fire for three Days, in a Glaſs Furnace. At length you'll find a red Maſs, wherewith a very red Tincture may be made with rectified Spirit of VVine. *I do not think*, ſays *Viganus*, *that any of the Salt of Tartar remains in the Tincture, by reaſon of the violent Calcination*; and we find by Experience, that if the red Powder be expoſed to the Air, it does not loſe its Redneſs.

Mercurius Dulcis.

Powder ſixteen Ounces of corroſive Sublimate in a Glaſs Mortar; mix with it by degrees twelve Ounces of Mercury revived from Cinnabar; ſtir this Mixture with a wooden Peſtle, till all the Quickſilver becomes imperceptible; then put this gray Powder into ſeveral Viols, two Thirds whereof muſt remain empty; ſet them in a Sand Furnace, with a little Fire at firſt, then increaſe it to the third Degree; continue it in

this Condition till your Sublimate is made, which uſually happens in four or five Hours. Break your Viols, and fling away a little light Earth that is found at the Bottom. Separate alſo that which ſticks to the Neck of the Viols, but gather up carefully all that is in the Middle, which is very white, and having powdered it, ſublime it again in Viols, as before; ſeparate once more the Matter in the middle, and ſublime it in other Viols as before. Laſtly, ſeparate the Earthy Matter at the Bottom, and the fuliginous that lies in the Neck of the Viols, and keep the Sublimate that is in the middle, for it is ſufficiently ſweetened. Mercurius Dulcis is uſed for all Venereal Diſeaſes. It opens Obſtructions, and kills Worms. The Doſe is from ſix Grains to half a Dram.

White Precipitate.

Diſſolve eight Ounces of Mercury, revived from Cinnabar, in ten Ounces of Spirit of Niter; after it is diſſolved, pour upon it Salt Water filtrated, made of five Ounces of Sea Salt, in a quart of Water; add a quarter of an Ounce of volatile Spirit of Sal Armoniac, and a white Powder will precipitate; when it is ſettled, pour off the Water, and waſh it well with Fountain Water, and dry it in the Shade. It is uſed to raiſe a Salivation. The Doſe is from four to fifteen Grains. It cures Tetters, and the Itch, a Dram, or two Drams of it being mixed with one Ounce of Pomatum.

Red Precipitate.

Diſſolve four Ounces of Mercury revived from Cinnabar in five Ounces of Spirit of Niter; pour the Diſſolution into a ſhortnecked Viol, and evaporate with a gentle Heat all the Moiſture; then quicken the Fire by degrees, and raiſe to the third Degree, and continue it ſo, till all the Matter is turned red; then take it off the Fire, and break the Viol when it is cool, and take out the Precipitate. It takes down proud Fleſh, and lays

lays open Chancres, being mixed with burnt Allom, Ægyptiacum, and Baſilicon.

Turbith Mineral.

Diſſolve two Ounces of Quickſilver revived from Cinnabar, with eight Ounces of Oyl of Vitriol, in a Glaſs Retort; then ſet the Retort in Sand, and make a Fire underneath, and diſtil the Humidity. Make the Fire ſtrong enough towards the End, to force out ſome of the laſt Spirits; then break your Retort, and powder the white Maſs in a Glaſs Mortar; pour warm Water upon it, and the Matter will preſently turn to a yellow Powder, which you muſt ſweeten by waſhing it often, then dry it in the Shade. It purges ſtrongly, both by Vomit and Stool, and is uſed for the *French* Pox. The Doſe is from two Grains to ſix in Pills.

Opening Saffron of Mars.

Waſh well ſeveral Iron Plates, and expoſe them to the Dew for a great while; when they are ruſty, you muſt gather up the Ruſt, and then put the Plates again in the Dew, and gather the Ruſt as before; and ſo do till you have got enough. This is really the beſt Saffron of *Mars*. It cures the Dropſy, Green-ſickneſs, Obſtructions of the Liver, Pancreas, Spleen, and Meſentery. The Doſe is from two Grains to two Scruples.

Aſtringent Saffron of Mars.

VVaſh what quantity you pleaſe of the following aperitive Saffron of *Mars*, five or ſix times with ſtrong Vinegar, leaving it to ſteep an Hour at a time, then calcine it in a Pot in a great Fire five or ſix Hours; after that let it cool, and keep it for Uſe. For this opening Saffron of *Mars*, take of Filings of Steel, and Sulphur powdered, each equal Quantities. Mix them together, and make them into a Paſte with Water; put this Paſte into an Earthen Pan, and leave it to ferment four or five Hours; after which put the Pan over a good Fire, and ſtir the Matter with an Iron

Spatula, which will flame; and when the Sulphur is burnt, it will appear black; but continuing a good ſtrong Fire, and ſtirring it about two Hours, it will be of a very red Colour, and then it is made. The binding Saffron of *Mars* ſtops a Looſneſs, and immoderate Fluxes of Hemorrhoids and Courſes. The Doſe is from fifteen Grains to a Dram.

Salt of Mars.

Take of Spirit of Wine and Oyl of Vitriol, each equal Parts; put them in a clean Frying-pan, and ſet it in the Sun for ſome time, then in the Shade without ſtirring; it will turn to a Salt; dry it, and keep it in a Viol well ſtopt. It is good for Obſtructions. The Doſe is from ſix to twelve Grains in ſome proper Liquor.

Tincture of Steel.

Powder and mix well together, twelve Ounces of Ruſt of Iron, and two Pound of white Tartar of Mount-pelier, then boyl them in a great Iron Pot, with fifteen Pints of Rain Water, twelve Hours; ſtir the Matter with an Iron Slice often, and pour in more boyling Water, according as it conſumes; afterwards leave it a while to ſettle, and you'll have a black Liquor; filtrate, and evaporate it in an Earthen Pan, over a Sand Fire, till a Skin riſes upon it. It opens Obſtructions, is good for Cachexies, Dropſies, and Obſtructions of the Courſes. The Doſe is from a Dram to half an Ounce in a proper Liquor.

Volatile Spirit of Sal Armoniac.

Powder a-part eight Ounces of Sal Armoniac, and a Pound and an half of quick Lime; mix them in a Mortar, and pour upon them four Ounces of Water, and put it preſently into a Retort, half whereof muſt remain empty; ſet your Retort in a Sand Furnace, and fit to it a great Receiver, and lute the Junctures exactly. Begin the Diſtillation without Fire for a quarter of an Hour, afterwards increaſe by little and little to the

ſe-

ſecond Degree, continue it till nothing more comes forth; take off your Receiver, and pour out the Spirit immediately into a Viol, turning away your Head, as much as may be, to avoid a very ſubtle Vapour that continually ariſes from it. Stop the Bottle cloſe with Wax to keep in the Spirit. You'll have of it five Ounces and ſix Drams. It is good for Obſtructions, malignant Fevers, Falling-ſickneſs, the Palſy, Plague, Small-pox, and the like. It works by Perſpiration, or by Urine. The Doſe is from ſix to twenty Drops in ſome proper Liquor.

Roſine of Jalap.

Powder groſly a Pound of good Jalap, and put it into a large Bolt-head, and pour upon it as much rectified Spirit of Wine, as will riſe three Fingers above the Matter; ſtop the Bolt-head with another, whoſe Neck enters into it, and luting the Junctures with a wet Bladder, digeſt it three Days in a Sand Heat; the Spirit of Wine will receive a red Tincture. Decant it, and then pour more upon the Jalap; proceed as before, and mixing your Diſſolutions, filtrate them through brown Paper. Put that which you have filtrated into a Glaſs Cucurbit, and diſtil in a vaporous Bath, two Thirds of the Spirit of Wine, which may ſerve another time for the ſame Operation. Pour that which remains at the Bottom of the Cucurbit, into a large Earthen Pan filled with Water, and it will turn to a Milk, which you muſt leave a Day to ſettle; and then ſeparate the Water by Inclination, you will find the Roſine at Bottom like Turpentine; waſh it ſeveral times with Water, and dry it in the Sun; it will grow hard like common Roſine; powder it fine, and it will become white: Keep it in a Viol. It purges Serum, and is good for Dropſies. The Doſe is from four to twelve Grains.

Extract of Rhubarb.

Bruiſe, or cut very ſmall a Pound of good Rhubarb, and put it into a glaſs Cucurbit; pour upon it two Quarts of Succory or Endive Water; then having placed the Cucurbit in a Bath of Sand, and kept a very moderate Fire under the Bath, ſtrain out the Tincture, and put the Sediment again into the Cucurbit, and pour upon it a Quart of Succory Water. Renew the Maceration in the ſame Bath, and with the ſame heat for ſix hours; then having ſtrained, and preſſed out the ſubſtances, and returned the Sediment again into the Cucurbit, pour upon it a Pint of good Spirit of Wine, and having carefully luted it, put it into the ſame Bath, and renew the Maceration for ſix hours; ſtrain the whole, and preſs it out very hard; then having mixed this Tincture with the former, and paſſed the whole Mixture thro' a Sheet of Cap-paper, pour the filtred Liquor into a glazed Pipkin, and evaporate the ſuperfluous Moiſture over a very gentle Fire, which muſt be continued till the principal ſubſtance of the Rhubarb remains at the Bottom of the Pipkin, about as thick as the Conſiſtence of an Extract.

Extract of Coloquintida.

Having cleanſed the Coloquintida from all its Seeds, and cut the Pulp very ſmall, put a Pound thereof into an indifferent large Cucurbit, and place it upon Sand, and put to the Coloquintida three Quarts of white Wine; put on the head of the Cucurbit, and lute it well, and fit on a Receiver; kindle a gentle Fire under the Furnace, and keep it ſo twelve hours; then unlute the Veſſels, and ſtrain out the Infuſion, and ſet it apart; put the Sediment into the Cucurbit again, and pour upon it a Pint of good Spirit of Wine, and all the Wine which was diſtilled into the Receiver; then ſtop up the Cucurbit, and lute it well, and infuſe the whole for twelve hours in a Bath like the former,

former, but with a little more heat; preſs out the Tincture, and mix it with the former, and filter both thro' a Sheet of Cap-paper; put it again into a Cucurbit, fit on a Receiver, and draw off in Sand with a moderate Fire the Spirit of Wine, which will ſerve another time for the like Tinctures; then unlute the Veſſels, and pour all the Liquor that remains in the Cucurbit into a glazed Pipkin, and evaporate the ſuperfluous Moiſture leiſurely in Sand, till it come to the Conſiſtence of a Rob; When it is cold, keep it in a Pot for uſe, or you may continue the Evaporation, and reduce this Rob to a real Extract of Coloquintida. It is chiefly uſed to purge watry Humours from the remote parts of the Body, and is alſo very good for a Dropſy. It may be given with Extract of Rhubarb, or alone in Pills, from two or three Grains to eight or ten.

Oyl of Cinnamon.

Bruiſe four Pounds of good Cinnamon, infuſe in it ſix Quarts of hot Water, and digeſt it in an earthen Veſſel cloſe ſtopt two days; pour the Infuſion into a large Copper Limbeck, and lute a Receiver cloſe to it: Diſtill with a pretty good Fire three or four Pints of the Liquor; then unlute the Limbeck, and pour into it the diſtilled Water; you'll find at bottom a little Oyl, which you muſt pour into a Viol, and ſtop it cloſe; diſtill the Liquor as before; then returning the Water into the Limbeck, take the Oyl you find at bottom of the Receiver, and mix it with the firſt; repeat this Cohobation, until there riſes no more Oyl; then take away the Fire, and diſtil the Water that remains in the Receiver, the ſame way that Spirit of Wine is rectified, and you'l have an excellent Spirituous Cinnamon Water. The Oyl of Cinnamon ſtrengthens the Stomach, and is indeed an excellent Corroborative. After this manner almoſt all the Oyls of odoriferous Vegetables may be drawn, as Box,

Roſes, Roſmary, Lavender, Juniper, Cloves, and Aniſeeds.

Diſtillation of an odoriferous Plant, ſuch as Balm, its Extract, and fixt Salt.

Take a good quantity of Balm newly gathered, when it is in its Vigour; beat it well in a Mortar, and put it into a large earthen Pot; make a ſtrong Decoction of other Balm, and pour into the Pot enough of it, to ſweat it ſufficiently; cover the Pot, and leave it two days in Digeſtion; then put the Matter into a large copper Limbeck, and ſet on a Receiver; make a Fire of the ſecond Degree under it, and diſtil about half the Water; then let the Veſſels cool, and unlute them; you'l find in the Receiver a very good Balm water. Let it ſtand open in the Sun five or ſix days; then ſtop it, and keep it for uſe.

Preſs thro' a Linnen Cloath, that which remains in the Body, and let the Expreſſion ſettle; filter and evaporate the Water with a gentle heat in an earthen Veſſel, till there remains an Extract of the conſiſtence of Honey.

Dry the reſidence that remains after expreſſion, and burn it with ſtore of other Balm likewiſe dryed; you may obtain an Alkali Salt from the Aſhes by a Lee in Water, which being filtred, evaporate it in a Glaſs, or earthen Veſſel in Sand, there will remain a Salt, which you may make white by calcining it in a Crucible in a ſtrong Fire.

The Water, Extract, and Salt of all odoriferous Plants, ſuch as Sage, Marjoram, Thym, Mint, Hyſſop, and the like may be drawn after the ſame manner.

The Diſtillation of a Plant, that is not oderiferous, ſuch as Carduus benedictus, and its eſſential Salt.

Take a good Quantity of Carduus Benedictus, when it is in its prime; pound it in a Mortar, and fill with it two thirds of a Limbeck; draw by expreſſion a ſufficient

ficient quantity of the Juice of other Carduus, and pour it into the Limbeck, that the Herbs ſwiming in the Juice may not ſtick to the Bottom, during the diſtillation: Diſtil with a Fire of the ſecond Degree, about half as much VVater, as you uſed Juice.

Preſs thro' a Linnen Cloath that which remains in the Limbeck; let the Juice ſettle, and after it is filtred, evaporate with a ſmall Fire about two thirds of the Liquor in an earthen, or glaſs Veſſel; ſet this Veſſel in a cool place, and leave it there eight or ten days, there will ſhout out Criſtals round about the Veſſel; Separate them, and keep them in a Viol well ſtopt, theſe Criſtals are called the eſſential Salt. The extract of Carduus may be alſo made as the Extract of Balm was. Succory, Fumitory, Sorel, Scabius, Creſſes, and all other Plants, that are not odoriferous, which yield good ſtore of Juice, muſt be diſtilled like Carduus Benedictus; and this method may ſerve to draw the eſſential Salt out of any Plant whatſoever.

Spirit of Wine Tartarized.

Fill a large Bolt-head with a long Neck half full of Brandy, and fitting a Head and Receiver, lute cloſe the Junctures; ſet your Bolt-head upon a Pot half filled with Water, to diſtil in a vaporous Bath: The Spirit will ſeparate from the Flegm, and riſe pure; continue the Fire till nothing more diſtils, ſo you'l have a pure Spirit of Wine at the firſt diſtillation. Put a Pound of Salt of Tartar into a long Glaſs Body; pour upon it two Quarts of Spirit of Wine prepared, as above; place your Veſſel in Sand, and cover it with a Head, to which fit a Receiver; lute well the Junctures with a wet Bladder, and give it a gradual Fire, which continue until three parts of the Spirit of Wine are riſen; then remove the Fire, and keep this Spirit in a Viol well ſtopt.

Queen of Hungary's *Water.*

Gather Roſmary Flowers, when they are at their beſt,

beſt, and fill a Glaſs Cucurbit half full with them; pour on them a ſufficient quantity of Spirit of Wine, to infuſe them; ſet the Cucurbit in a Bath, and joyning its Head and Receiver, lute cloſe the Junctures, and give it a digeſtive Fire for three days; then unlute them, and pour into the Cucurbit that which has bin diſtilled; refit your Limbeck, and increaſe the Fire ſtrong enough to make the Liquor diſtil drop by drop, and when you have drawn about two thirds of it, put out the Fire; let the Veſſels cool, and unlute them. Keep the Water in a Viol well ſtopt.

Laudanum.

Cut into ſlices four Ounces of good Opium, and put it into a Bolt-head; pour upon it a Quart of Rain Water well filtred; ſtop the Bolt-head, and ſetting it in the Sand, increaſe your Fire by degrees, to make the Liquor boyl for two hours, ſtrain it warm, and pour it into a Bottle. Take the Opium, which remains undiſſolved in the Rain Water, dry it in an earthen Pan over a ſmall Fire, and putting it into a Matraſs, pour upon it Spirit of Wine to the height of four Fingers; ſtop the Matraſs, and digeſt the Matter twelve hours in hot Aſhes; afterwards ſtrain the Liquor, and there will remain a glutinous Earth, which is to be flung away. Evaporate both theſe Diſſolutions of Opium ſeparatly in Glaſs Veſſels in a Sand Heat, to the Conſiſtence of Honey; then mix them, and evaporate to the Conſiſtence of a ſolid Extract.

Extract of Aloes.

Diſſolve in a ſufficient quantity of Juice of Roſes, eight Ounces of Soecatrine Aloes; after the diſſolution is ſettled five or ſix hours, decant it, and when you have filtred it, evaporate the Liquor gently, till it comes to the Conſiſtence of an Extract.

Diſtillation of Tabacco.

Put into a Glaſs Cucurbit eight Ounces of good Tabacco

bacco cut ſmall; pour upon it about an equal weight of Flegm of Vitriol; cover the Cucurbit with its Head, and digeſt the Matter in Sand for a day; fit to it a Receiver, and diſtil about five Ounces of Liquor with a ſmall Fire; keep it in a Viol. It is a ſtrong Vomit. The Doſe is from two Drams to ſix in ſome proper Liquor. It is likewiſe good for Tetters, and the Itch, the parts being gently rubbed with it. Put that which remains in the Cucurbit into an earthen Retort; place it in a Furnace, and fit to it a great Receiver, and luting cloſe the Junctures, begin with a ſmall Fire to raiſe all the Flegm; increaſe the Fire by little and little, and the Spirits will come forth with a black Oyl; continue the Fire till there comes no more. Let the Veſſels cool, and unlute them. Pour that which you find in the Receiver into a Tunnel lined with brown Paper; the watry part will paſs thro', while the black and fœtid Oyl remains in the Filter. Keep it in a Viol. A Dram of it may be mixed with two Ounces of Hogs Greaſe; it is a good remedy for the Itch and Tetters. This Oyl is very deſtructive to ſeveral Animals, eſpecially to Cats; for if a ſmall Drop of it be dropt upon the Tongue, it occaſions deadly Convulſions, and the Creature periſhes, if Spirit of Sal Armoniac be not preſently applyed to the Noſtrils. Of the Juice of Tabacco the *Italians* make an Oyntment, which they count very good for ſordid Ulcers. The *Spaniards* are much delighted with Tabacco of their own growth, which is very ſweet, and beſt to make ſneezing Powder. The *Portugueſe* moſt eſteem Braſil Tabacco, which is very ſtrong, and very narcotic. The People of *China* and *Japan* have Tabacco, but they uſe it ſparingly, as do the *Turks* and *Perſians*. The *Engliſh* and *Dutch* eſteem *Virginia* Tabacco, which they ſometimes mix with Maſtich, Ambar, Harts-horn, Lavender, Bettony, Sage, according to their Conſtitution.

Diſtillation

Diſtillation of Turpentine.

Take three Pounds of good Turpentine, and pour it into a Retort large enough to remain half empty; add to it an handful of Stupe, to prevent the thicker parts of the Turpentine from riſing, when the Liquor diſtils; you muſt cleanſe the inſide of the Neck of the Retort, and place it in a Furnace to diſtil in an open Fire; fit to it a Receiver, and luting the Joynts, begin the diſtillation with a very ſmall Fire, only to warm the Retort, and to drive out a volatile Spirit; after which increaſe the Fire by degrees; there will come forth firſt a clear Oyl, then a yellow Oyl, and at laſt a red Oyl; Take care to ſeparate theſe Liquors, as they do diſtil, and when you ſee the red Oyl begin to come thick, take away the Fire, and when the Veſſels are cold, unlute them; keep all theſe Liquors ſeparately in Viols. The volatile Spirit is an excellent Aperitive. It is given from four to twelve Drops in ſome proper Liquor, to expel Gravel, and for nephritic Pains. The firſt Oyl ſerves for the ſame uſes, as the Spirit. The ſecond and third ſerve as a Balſom to heal Wounds, to aſſwage Swellings, and to fortify the Nerves.

Oyl of Camphor.

Put into a Matraſs three or four Ounces of good Camphor groſly beaten, and pour upon it twice as much Spirit of Niter; ſtop your Veſſel cloſe, and ſet it over a Pot half full of Water a little heated; ſtir it now and then to help forward the Diſſolution, which will be finiſhed in three Hours, and then you'll find the Camphor turned into a clear Oyl, which ſwims above the Spirit; ſeparate it, and keep it in a Viol well ſtopt. It is uſed for the Caries of Bones, and to touch Nerves that are uncovered.

Oyl of Myrrh per Deliquium.

Boyl Eggs until they are hard; then cutting them in two, ſeparate the Yolk, and fill the White with Myrrh

Myrrh powdered; ſet them on little Sticks placed conveniently in an Earthen Pan, in ſome moiſt place, and there will diſtil a Liquor to the Bottom of the Veſſel, which you muſt keep for Uſe. It clears the Face from Spots.

Diſtillation of Vipers.

Put ſix Dozen of Vipers dryed in the Shade into a coated Glaſs Retort; ſet it in a reverberatory Furnace; fit to it a large Receiver, and lute the Joints cloſe; then begin the Diſtillation with a ſmall Fire to warm the Retort gently, and to drive out a flegmatic Water Drop by Drop; when this Water ceaſes to drop, increaſe the Fire a little, and Spirits will come forth, which will fill the Receiver with white Clouds, and at laſt a black Oyl will diſtil, and a little volatile Salt will ſtick to the Sides of the Receiver; continue the Fire till there comes no more; then let the Veſſels cool, and unlute them; ſhake about the Receiver a little, that the volatile Salt may fall from the Sides, and pour it all into a Bolt-head, fit to it, with a Head, and a ſmall Receiver, and lute the Joints with a wet Bladder. You muſt place your Veſſel in Sand, and with a gentle Fire under it, the volatile Salt will ſublime, and ſtick to the Head, and uppermoſt Part of the Bolt-head. Separate it, and keep it in a Viol well ſtopt.

It is an excellent Medicine, good for malignant Fevers, Agues, Pox, Apoplexy, Falling-Sickneſs, Palſy, Hyſterick Diſeaſes, and the Bitings of all venomous Beaſts. The Doſe is from ſix to ſixteen Grains in ſome proper Liquor. That which remains in the Bolt-head muſt be turned into a Tunnel lined with brown Paper; the Spirit and Flegm will paſs through, but the ſtinking Oyl will remain behind; with this Oyl Paralytick Parts may be anointed. The Spirit and Flegm mixed confuſedly, muſt be put into an Alembick, and diſtilled in a vaporous Bath, till half the Liquor comes off, and you'll have a Spirit, that muſt

muſt be kept well ſtopt. It is much of the ſame Virtue with the Salt. The Doſe is from ten to thirty Drops. The volatile Salt of Harts-horn may be drawn the ſame way, and alſo the Spirit.

Diſtillation of Urine.

Take of ſound Young Mens Urine, newly rendred, twelve Quarts; evaporate it in an Earthen Cucurbit, in a Sand Heat to the Conſiſtence of Honey; put on an Head and Receiver, and lute the Joints cloſe; make a ſmall Fire, to draw off what remains of the Flegm; then increaſe it by degrees, and the Spirit will riſe with a little Oyl, and afterwards the volatile Salt, which will ſtick to the Head; keep up the Fire, till there comes no more; then unlute the Veſſels, and ſeparate the volatile Salt, and put it into a Bolt-head, and pour upon it the Spirit that is in the Receiver; then put a Blind-head to the Bolt-head, and lute the Joints with a wet Bladder; then ſet the Bolt-head on Sand, and ſublime with a ſmall Fire all the volatile Salt, and keep it in a Viol well ſtopt. It operates by Urine and Sweat, is good for Agues, and malignant Fevers, and opens Obſtructions. The Doſe is from five to fifteen Grains in ſome proper Liquor. That which remains in the Bolt-head muſt be filtred; the Spirit will paſs through the Filter, but the ſtinking Oyl will be kept behind.

The Spirit may be diſtilled in a Sand Heat, to ſeparate it from a thick Matter, which remains at Bottom. It has the ſame Virtues as the Salt. It is given from eight to twenty Drops.

Diſtillation of Honey.

Put four Pound of good Honey into a large Earthen Body, and diſtil the Water in a moderate Sand Heat, until acid Drops begin to come; then put out the Fire, and keep the Water for Uſe. It makes the Hair grow, the Roots of the Hairs being moiſtened with a Spunge dipt in it, Put what remains in the Bo-

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dy into a Glaſs-coated Retort, whereof two Thirds muſt remain empty; ſet the Retort in a reverberatory Furnace; then put on a large Receiver, and lute the Joints; then begin the Diſtillation with a gentle Fire for three Hours, to warm the Retort; then increaſe it by degrees, and the Spirits will riſe with a little black Oyl, and fill the Receiver with Clouds; continue the Fire till it will diſtil no longer; then unlute the Veſſels, and ſeparate the Spirit from the black Oyl in a Tunnel lined with brown Paper. This Spirit opens Obſtructions, and may be dropt into Juleps to make them pleaſantly acid.

Crocus Metallorum.

Take of Antimony and Niter, each one Pound; powder them, and mix them well together; put this Mixture into an Iron Mortar, and cover it with a Tile; but leave an open place, to put in and take out a live Coal; when the Coal is put to it, the Matter will flame, and cauſe a great Detonation, which being over, and the Mortar grown cold, ſtrike againſt the Bottom, that the Matter may fall down; then ſeparate the Droſs from the ſhining part with an Hammer. This is called Liver of Antimony, which being waſht ſeveral times, with warm Water, is called Crocus Metallorum. The Doſe of it is from two to eight Grains.

Glaſs of Antimony.

Take of Antimony powdered, one Pound; calcine it in a ſmall Fire in an unglazed earthen Pot. Stir the Matter continually with an Iron Spatula, until Vapours riſe no longer: But if, notwithſtanding your ſtirring, the Powder ſhould chance to run into Lumps, as it often does, put it into a Mortar, and powder it, and calcine it again, and when it will fume no more, and is of a gray Colour, put it into a Crucible, cover it with a Tile, and ſet it in a Wind Furnace, and make a very ſtrong Coal Fire to melt the Matter. Uncover the

the Crucible about an Hour afterwards, and put the End of an Iron Rod into it, to ſee whether the Matter that ſticks to it is become diaphanous; if ſo, pour it upon a Marble Stone well warmed, and it will congeal, and you'll have the Glaſs of Antimony. Cool it, and keep it for Uſe. It is a violent Vomit. The Doſe is from two to ſix Grains.

Diſtillation of Guiacum.

Fill a large Retort three quarters full with Guiacum raſped; place it in a reverberatory Furnace, and put on a large Receiver; begin the Diſtillation with a Fire of the firſt Degree, to warm the Retort gently, and to diſtil the Water, which they call Flegm; continue it in this condition, until there come no more Drops, which is a Sign that all the Flegm is diſtilled. Throw away that which you find in the Receiver, and fitting it again to the Neck of the Retort, lute well the Junctures. You muſt afterwards encreaſe the Fire by degrees, and the Spirits, and Oyl will come forth in white Clouds; continue the Fire until there comes no more; let the Veſſels cool, and unlute them; pour that which is in the Receiver into a Tunnel lined with brown Paper, ſet upon a Bottle, and the Spirit will paſs through, and leave the black Oyl in the Tunnel; pour it into a Viol, and keep it for Uſe; it is an excellent Remedy for Rottenneſs of Bones, for the Tooth-ach, and to cleanſe old Ulcers. It may be rectified, as Oyl of Ambar is, and may be uſed inwardly in the Epileſy, Palſy, and to expel the Secundine. The Doſe is from two Drops to ſix.

Cornachine Powder.

Take of Antimonium Diaphoreticum, Diagrydium, and Cream of Tartar, each equal Parts. The Doſe is from twenty to forty five Grains.

Sweet Spirit of Niter.

Put eight Ounces of good Spirit of Niter, and ſo much Spirit of Wine alcoholized into a large Bolt-head;

head; ſet it upon Straw in a Chimney, and the Liquor will grow hot, without Fire under it; and half an Hour, or an Hour afterwards, it will boyl very much; have a care of the red Vapours that come out apace, at the Neck of the Bolt-head; and when the Ebullition is over, you'll find the Liquor clear at the Bottom, and to have loſt half what it was. Put it into a Viol, and keep it for Uſe. Sweet Spirit of Niter is good for the Wind-Cholick, and nephritick Pains, for Hyſterick Diſeaſes, and all Obſtructions. The Doſe is from four to eight Drops in ſome proper Liquor.

Sweet Spirit of Salt.

Take of Spirit of Salt, and Spirit of Wine, each equal Parts; mix them, and ſet them in Digeſtion for two or three Days in a double Veſſel, in a gentle Sand Heat. It is good to expel Gravel. The Doſe is from four to twelve Drops, in ſome convenient Liquor.

Sal Prunellæ.

Take of purified Salt-peter, two Pounds; put it into a Crucible, and ſet the Crucible in a Furnace among burning Coals; when the Niter is melted, throw into it one Ounce of Flowers of Sulphur, a Spoonful at a time, the Matter will preſently flame, and the more volatile Parts of the Salt-peter will fly away. When the Flame is over, the Matter will remain in a very clear Fuſion. Take the Crucible out with a Pair of Tongs, and pour the Matter into a clean Braſs Baſon, a little warmed; ſhake about the Baſon to ſpread the Matter while it is cooling. Sal Prunellæ is cooling, and diuretick, is good for Fevers, Quinſeys, and the running of the Reins, and for all Diſeaſes that are occaſioned by Heat, and Obſtructions. The Doſe is from half a Dram to a Dram in ſome proper Liquor.

Tincture of Ambar.

Make a fine Powder of ſix Ounces of yellow Ambar, put it into a Bolt-head, and pour upon it rectified Spi-

rit of Wine, to the Height of four Fingers; put another Bolt-head into this, and ſo make a double Veſſel; lute the Joints well with a wet Bladder, and digeſt it five or ſix Days in hot Sand, till you have a good Tincture; then pour off the Tincture, and put more Spirit of Wine to the Matter; digeſt as before, and mix it with the other Tincture; filtrate them, and diſtill them in a Limbeck, and draw off with a ſmall Fire half the Spirit Wine, and keep the Tincture in a Viol well ſtopt. It is good for hyſteric Diſeaſes, the Palſy, Falling-ſickneſs, and Apoplexy. The Doſe is from ten Drops to a Dram in ſome proper Liquor.

Deſtillation of Ambar.

Powder Ambar groſly, and fill with it two Thirds of a coated Glaſs Retort; ſet it in a Furnace on two Iron Bars, and put on a large Receiver; lute the Joints cloſe, and with a ſmall Fire warm the Retort, and drive out the Flegm; then increaſe the Fire by little and little, and there will diſtil a Spirit, and an Oyl; continue the Fire, until there comes no more; then let the Veſſels cool, and unlute them; pour a Pint of warm Water into the Receiver to diſſolve ſome volatile Salt that ſticks to the Sides; pour all the Liquor into a Glaſs Limbeck; put on a Receiver, and lute the Joynts cloſe; heat the Veſſels with a ſmall Fire; afterwards increaſe it a little, and the Spirit and Water will riſe, and with them a little white Oyl; continue the Fire until no more riſes, and the thick Oyl remains at the Bottom, without boyling; ſeparate the white Oyl that ſwims upon the Flegm and Spirit, and keep it in a Viol well ſtopt. It is uſed inwardly for the Falling-ſickneſs, Palſy, Apoplexy, and hyſteric Diſeaſes. The Doſe is from one Drop to three in ſome proper Liquor. To ſeparate the Water and Spirit, you muſt pour them both into a Glaſs Diſh, and evaporate over a very ſmall Fire, two Thirds of it; that which remains is Spirit of Ambar;

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keep it in a Viol well ſtopt. It is good for the Scurvy, Jaundice, ſtoppage of the Urine, and for Ulcers in the Neck of the Bladder. The Doſe is from twelve to twenty four Drops in ſome proper Liquor. The black Oyl muſt be kept for external Uſes.

Volatile Salt of Ambar.

Powder two Pounds of Ambar, put it into a large Earthen Cucurbit, whereof three Parts muſt be empty; place it in Sand, put on the Head, and a ſmall Receiver, and lute the Junctures cloſe; keep a ſmall Fire under, for about an Hour; then when the Cucurbit is grown hot, increaſe the Fire leiſurely to the third Degree, and there will drop firſt a Flegm and Spirit, afterwards the volatile Salt riſes, and ſticks to the Head in Criſtals, then there diſtils an Oyl, firſt white, then red; when the Vapours ceaſe, put out the Fire, and when the Veſſels are cold unlute them; bruſh the volatile Salt together with a Feather, and put it into a large Viol, whereof three Parts muſt be empty; place the Viol in Sand, and ſtop it only with Paper, and with a little Fire ſublime the pure Salt in fair Cryſtals to the Top of the Viol; take the Viol from the Fire, when you perceive the Oyl riſe; break the Viol, and put the Salt into another Viol well ſtopt. This Salt is good for the Jaundice, Difficulty of Urine, Ulcers in the Bladder, the Scurvy, and hyſteric Fits, and is excellent for all Obſtructions. The Doſe is from eight to ſixteen Grains in ſome proper Liquor.

Cinnabar of Antimony.

Take the Caput Mortuum of Antimony, remaining after the Diſtillation of the Butter; put it into a ſmall Glaſs Retort well coated, and place it in a reverberatory Furnace; the Flame muſt not touch the Neck of the Retort; continue the Fire an Hour and an half, and all the Caput Morttum will be ſublimed in the Neck of the Retort into the Subſtance of Cinnabar; break the Retort, and ſeparate the ſmall Fæces. Pow-

der the Cinnabar, and ſublime it again in a new Retort. It is an excellent Medicine both in young and old, and without doubt like an Alcali. It attemperates the Acrimony of the Humours. The Doſe is two Grains.

Bezoardicum Minerale.

Melt in hot Aſhes two Ounces of the Butter of Antimony, put it into a Bolt-head, drop upon it good Spirit of Niter, till the Matter is quite diſſolevd; while it is diſſolving, Vapours will riſe from it, which you muſt carefully avoid, and therefore it is beſt to place it in a Chimney. Pour the Solution into an Earthen Pan, and evaporate it over a gentle Sand Fire, till it is dry; a white Maſs will remain, which you muſt let cool; then pour upon it two Ounces of Spirit of Niter; ſet the Veſſel again in Sand, and evaporate as before; pour again two Ounces of Spirit of Niter, and after the Moiſture is evaporated, increaſe the Fire a little, and calcine the Matter half an Hour; then put out the Fire, and you'll have a white Powder. Keep it in a Viol well ſtopt. It forces Sweat. The Doſe is from ſix to twenty Grains in ſome proper Liquor.

Butter of Antimony.

Take of Regulus of Antimony powdered, ſix Ounces; of ſublimate Corroſive powdered, one Pound; mix them, and put them into a Glaſs Retort, half whereof muſt remain empty; place your Retort in Sand, put on a Receiver, and lute the Joints; then kindle a ſmall Fire, and there will drop a clear Oyl; after that increaſe the Fire a little, and white thick Liquor like Butter will come forth, which you muſt melt with live Coals, placed near the Neck of the Retort, that it may run into the Receiver. Continue Fire until you ſee a red Vapour come forth; then take away the Receiver, and place another in its Room filled with Water; increaſe the Fire by Degrees, and when

when the Retort is red hot, the Mercury will run into the Water. Dry it and keep it for Uſe as other Mercury. Butter of Antimony cleanſes Ulcers, and eats down proud Fleſh.

Common Regulus of Antimony.

Take of Antimony ſixteen Ounces, of crude Tartar, twelve Ounces; of purified Niter, ſix Ounces; powder them, and mix them well together; then make a large Crucible red hot, throw in a Spoonful of the Mixture, and cover it with a Tile, till the Noiſe is over, and ſo do by Spoonfuls, one after another, until all the Matter is caſt in; then make a great Fire about it, and when the Matter has been a while in Fuſion, pour it into a Mortar greaſed with Suet, and heated; then ſtrike the Sides of the Mortar with a Pair of Tongs, to make the Regulus fall to the Bottom. When it is cold, ſeparate the Droſs that remains in the Top with an Hammer; powder it, and melt it in another Crucible; then throw into it a little Niter, and it will flame a little; then pour out the Matter into the Mortar well cleanſed and greaſed, and let it cool.

Diaphoretic Antimony.

Take of Antimony, one Part; of purified Niter, three Parts; mix them well together, and caſt a Spoonful of this Mixture into a red hot Crucible, in the Fire; you'll hear a Noiſe, and when the Detonation is over, throw in another Spoonful, and ſo do, till all the Powder is in the Crucible; keep a great Fire about it two Hours; then caſt the white Matter into an Earthen Pan, filled almoſt with clear Water, and leave it ſteeping warm ten or twelve Hours, that the fixed Salt-peter may diſſolve in it; ſeparate the Liquor by Inclination, waſh the white Powder that remains at the Bottom five or ſix times with warm Wa- and dry it. It is ſudorifick, good for malignant Fevers, and other malignant Diſeaſes. The Doſe is from

from ſix Grains to thirty in ſome proper Liquor.

Oyl of the Barks of Oranges and Citrons.

Take of the freſh Barks of Oranges or Citrons, what Quantity you pleaſe; infuſe them till they putrify; then diſtil them in a ſufficient Quantity of Water. This Oyl heats, dries, is diaphoretick, kills Worms, and is alexipharmic.

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THE PREFACE.

THE following Treatiſe, being an Introduction to the Art of Phyſick, I have, in the firſt Part, collected from the beſt Inſtitutions, the Fundamentals of Phyſick, and have ſpoken briefly of Elements, Temperaments, Qualities, Sexes, Ages, and the various Temperaments of them, and of native Heat, and of Humours, *viz.* Blood, Flegm, Choler, Melancholy, Chyle: Alſo of natural excrementitious Humours, as Milk, Seed, menſtruous Blood, yellow Choler, Serum, the Humour of the Stomach, Spittle, pancreatic Juice, Lympha, and Slime of the Guts; alſo of Parts in general, of a Faculty in general, of Action in general, of the internal and external Senſes, of animal Motion, of the Pulſe, Circulation of the Blood, Reſpiration,

Chylification, Sanguification, the periſtaltick Motion of the Guts, Generation, Nutrition, of things non-natural in general, as of Air, and the like. But I have treated more largely of Meat and Drink, becauſe they are of great Importance with reſpect to the Preſervation of Health. I have alſo treated briefly of Sleep and Watching, of Motion and Reſt, and of the Non-naturals, and of things contrary to Nature, of Signs, a Criſis, and of Urine. And to conclude this Part, I have treated of Gliſters, Vomits, Purges, Bleeding, Leeches, Baths, Frictions, Ligatures, actual and potential Cauteries, Cupping-Glaſſes, and Iſſues; of Phyſical Weights and Meaſures, and the way of compoſing the various Forms of Medicines.

The ſecond Part, which I call, *Materia Medica contracted*, was chiefly collected from *Etmuller* and *Marggravius*.

Laſtly, I have added, *Marggrav*'s Shop-Compoſitions, and a Collection of ſuch Chymical Medicines as I judg moſt uſeful.

J. PECHEY.

From the Angel *and* Crown *in* Baſing-Lane, London, June 24, 1697.

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A Plain and Short

INTRODUCTION

TO THE

Art of Physick.

CONTAINING

The Fundamentals,

And Necessary

Preliminaries to Practice.

CHAP. I.

Of Medicine in general.

PHysick, both upon the account of its object, and the necessity of it, is a most Noble Art.

It wholly consists of Practice; for all the parts of it are directed to Healing: And therefore it is an Art, and not a Science; the end whereof is Contemplation: And consequently, Treatises that are made up of Hypotheses, or Suppositions, belong rather to Phylosophy than Physick.

But it muſt be acknowledged, that there are ſome Diſeaſes incurable, therefore out of the reach of Phyſick; yet it is neceſſary to treat of them, that they may be known as ſuch, and foretold, that the Art may not be diſgraced.

It's ſaid to be Conjectural only, by reaſon of him that exerciſeth it, who can only gueſs at Diſeaſes and their Cauſes, the Quantity and Virtue of Medicines, and the particular Proprieties of the Body; for it has as much certainty in it as many other Arts; and to ſpeak the Truth, what Certainty is there, beſides the firſt Truths, and Matters of Faith.

It is commonly divided into five parts, *viz.* Phyſiology, that Treats of Natural Things: Hygiene, that Treats of Things non-natural, or Things neceſſary for the preſervation of Health; but yet ſometimes hurting it: Pathology, that Treats of Things contrary to Nature: Semeiotice, that ſhews the Signs of Things contrary to Nature: Therapeutice, that Treats of the general way of Cure, by Chyrurgery, Pharmacy, and Diet.

But Phyſiology does not properly belong to Phyſick, and therefore ought not to be accounted a part of it; yet becauſe it is uſually propoſed in Treatiſes of this kind, I will briefly do ſo.

Things that are called Natural are ſeven, *viz.* Elements, Temperaments, Humours, Spirits, Parts, Faculties, Actions; and among theſe, are to be reckoned ſome other things which are treated of in Phyſiology, as Age, Sex, and the like.

Elements are the moſt Simple Bodies, of which all other Bodies are firſt compoſed, and at laſt diſſolved. The union or conjunction of the Elements in the Body is called mixture; and a Body made up of the Elements, is called mixed.

The Elements are Four, *viz.* Earth, Water, Air and Fire. The Chymiſts add Salt, Sulphur, and Mercury,

Mercury, tho' improperly; for in ſome Bodies, for inſtance, Gold, burnt Talc, Glaſs, you cannot find either of the three; and in other mixt Bodies you may find more, as in the Humane Blood, Flegm, Salt, Oyl, Spirit and Earth; and if we ſhould allow that Salt, Sulphur and Mercury may be drawn from ſome Bodies by the force of the Fire, it does not therefore follow, that they were in them before as firſt Principles; for perhaps they were produced in them by the Fire: Moreover, they are not perfectly Simple Bodies.

Temperament in general, is a convenient proportion of the Elements among themſelves, or is a ſymetrical proportion of the Qualities.

A Quality is a certain diſpoſition of inſenſible Particles, conſtituting ſenſible Parts; it is divided into Firſt and Second. Theſe Four are called the firſt, Heat, Cold, Moiſture, Dryneſs; and that which exceeds the reſt, denominates the Temperament.

The firſt Quality among Phyſicians is termed Actual and Potential; Actual, which is perceived immediately by touching, as Heat in Fire, Coldneſs in Water, and the like. It's ſaid Potential, when it is not immediately perceived by touching, as Heat in Pepper, Coldneſs in Lettice.

The ſecond Qualities are Colours, Sounds, Smells, Taſts, Gravity, Levity, Hardneſs, Softneſs, Smoothneſs, Roughneſs, Rarity, Denſity, and the like.

An equal Temperament with reſpect to weight, conſiſts in an exact mixture of all the firſt Qualities. An equal Temperament with reſpect to Juſtice, as they term it, is improperly called equal; for it's ſuch a proportion of the firſt Qualities as the Nature of the Mixture requires, whether they are in an equal degree or not.

Temperament is divided into Partial and Total. A Partial Temperament is that which is allotted to

every part; as the temperament of the Brain, Heart, or the like. A Temperament that is called Total is aſcribed to the whole Mixture, and is made up of ſuch as are partial, as the Temperament of this or that Man.

Temperament is alſo divided into innate and acquired. The innate Temperament is that which naturally belongs to a Man; the acquired is that which comes in the courſe of years, by reaſon of things non-natural, or contrary to Nature.

All the Parts of the Body, according to themſelves are hot and moiſt; yet with reſpect one to another, ſome are ſaid to be hot, cold, moiſt and dry. The Heart, Blood, Spirits, Arteries, Veins, Lungs, Spleen, Liver, are counted hot; but the Heart is reckoned the hotteſt.

Parts that are counted Cold, are the Bones, Cartilages, Tendons, Membranes, Ligaments, Spinal Marrow, and the like.

The moiſt parts, are the Blood and other Humours, the Brain, and Spinal Marrow.

The dry parts are the Bones, the Cartilages, Tendons, Ligaments, Heart, Lungs, Nails, Hair.

The ſigns of a hot and dry Temperament of the whole, are a quick and hard Pulſe, a dry habit of the Body, a brown Complexion, criſped Hair, of a brown or black Colour; for Heat feeds on the moiſture of the Body, melts the Fat, and drys up the Humours. The Appetite and Digeſtion are ſmall, there is a proneneſs to Anger, the Sleep is ſhort and diſturbed by reaſon of the heat of the Spirits; Venery is exceſſive, by reaſon of the Acrimony of the Seed; the Wit is Sharp, and the Body Active, becauſe the Spirits are pure. The *Italians* and *Spaniards* are ſo Conſtituted.

The ſigns of an hot and moiſt Temperament, are a large Pulſe, but not frequent nor hard; a Fat habit

bit of the Body, but not very Fat; becauſe that proceeds from Frigidity and Moiſture. The Complexion is florid and clear; the Hairs are ſometimes curled, and ſometimes not, and not very Black; the Appetite and Digeſtion are pretty good; the Sleep moderate and quiet, the Mind chearful; and Venery moderate.

The ſigns of a Cold and Moiſt Temperament are, a ſmall and ſoft Pulſe, a white and ſmooth Skin, a ſoft and fat habit of Body, the Hair Yellow, and moſt commonly ſtrait, the Appetite great, and the Digeſtion good; the Sleep very much, a drowſie Diſpoſition, Wit ſmall, an unfitneſs for Motion, Venery ſmall. And this is the Temperament of moſt of the *Northern* People.

The ſigns of a Cold and Dry Temperament are, a ſmall Pulſe, and ſomewhat hard; the Skin ſomewhat rough, the habit of the Body dry, the Hair thin, Appetite and Digeſtion ſmall, Sleep ſhorter than in the Cold and Moiſt Temperament, little or no inclination to Venery.

But it is to be noted, that you muſt not expect all theſe ſigns preciſely in theſe four Temperaments, yet there ought to be moſt of them; and according to the number of them, you muſt judge of the exceſs in this or that Quality.

CHAP. II.

Of the Sexes, Ages, and the various Temperaments of them.

ACcording to the diverſity of Sex and Age, the Temperament is alſo divers.

Sexes differ according to the different Conformation and Temper of the Genital Parts,

Sex is twofold, Maſculine and Feminine. The former is moſt commonly hotter than the latter; which appears *cæteris paribus*, by the Pulſe, that are larger and more frequent, by the habit of the Body, which is dryer, by the greater firmneſs of the Parts, by the Actions that are ſtronger and more perfect, by a greater diſpoſition to a Fever, and a leſs quantity of Crudities; all which, as they proceed from a greater heat, ſo they vindicate it. Nor does Womens growing ſooner, contradict what has bin ſaid, becauſe this is rather to be aſcribed to the ſoftneſs and ductility of the Parts, than to Heat: Nor would it make any thing againſt us, if we ſhould grant they have more Blood than Men; for if it ſhould be ſo, it would not follow that they generate more Blood; but that they do not conſume ſo much. They being more ſalacious, and more prone to Anger, proves nothing; for one may come from their Pride, and the other from the weakneſs of their Minds; tho' we confeſs that ſome Viragoes may be hotter than Men.

Age is the various ſeaſons of Humane Life, wherein ſome notable change is obſerved. They are eight: *Infancy*, which continues to the third year. *Childhood*, from the third to the tenth. *Puberty*, from the tenth to the eighteenth year. *Adoleſcency*, from the eighteenth to the twenty fifth. *Juvenility*, from the twenty fifth to the thirty fifth. *Virility*, from the thirty fifth to the fiftieth. *Old Age*, from the fiftieth to the ſixty fifth: *Decrepid Age* takes up all the reſt of the time of Life.

The Cauſes of Ages is the divers proportion of the Native Heat, at this or that time of Life, by reaſon of natural things, or things preternatural; ſo that the Ages in all are not circumſcribed within the ſaid terms of years; but they happen in ſome ſooner, in ſome later; and ſome grow Old ſooner than others.

In-

Infancy is the moſt Moiſt of all, which appears plainly from the flexibility and ſoftneſs of the Members; all other Ages, the farther they recede from Infancy, the dryer they are. But it is not the hoteſt of all; for the greateſt heat would not ſuit with moiſture; for it would either diſſipate it, or extinguiſh it. Heat therefore increaſes till Virility, and then it is at its height; for the habit of the Body, by continual action of the Heat, is dryed, and preſſes the mouths of the Arteries, and makes them narrower; ſo that on this account the thicker part of the Blood is kept from the Parts which it ought to moiſten; the Seroſities are not purged off, but are daily kept up more and more in the Veſſels, they ſuppreſs the Fire of the Heart, and at laſt extinguiſh it. The abundance of this unconcocted Humidity is the cauſe of Hoarineſs in Old Men; and their Baldneſs ariſes from the defect of the matter of Hairs; which is a fat Vapour, or at leaſt, becauſe ſuch a Vapour does not come to the Hairs, by reaſon of a conſtriction of the Pores. But in the mean while, we muſt not infer, that Old Men are moiſteſt; for their Blood does not penetrate and moiſten the parts of the Body, tho upon the account of the Excrements that are put off upon certain parts of the Body, as the Noſtrils, Eyes, and the like, they may ſeem moſt moiſt.

From what has bin ſaid it appears, that the next cauſe of Death in Old Men, is too great a Seroſity of the Blood; but the dryneſs of the Body is the remoter Cauſe, and want of Heat the moſt remote; and therefore Old Men are beſt preſerved by hot and dry things, as with Wine, and the Spirits of it, and the like; which revive the languid Heat, and dry up the Seroſities.

CHAP. III.

Of the Native Heat.

IT may not be incongruous to add ſomething concerning the Natural Heat to the Temperaments; according to the variation whereof, the Temperament varies much.

The Natural Heat is nothing elſe but a quick and confuſed Motion of a ſubtile Matter, or certain Fire that is not Lucid, ſuch as we perceive in Lime when it is ſprinkled with Water, in ſeveral Chymical Fermentations, in Horſe-dung, and in Herbs heapt up together and putrifying; yet is it hot, and differs only from our common Fire in degree. This motion ariſes hence, *viz.* becauſe a ſubtile Matter inſinuating it ſelf into the Blood, cannot move freely in it, and therefore is forced to exert its power upon the Particles of the Blood, and to agitate them confuſedly; ſo that it has the ſame Cauſes with Fermentation, and therefore we may well think it proceeds from it.

Fermentation is an inteſtine Motion among the heterogeneous Parts of any Body, whereby that in ſome ſort, is rarified and fired. It is effected in this manner, *viz.* A ſubtile Matter paſſing through ſome humid and fluid Bodies, meets with rigid Particles which are not very flexible, which ſwim in them, and becauſe they cannot accommodate themſelves to the Pores, occaſion a Confuſion; ſo that then the ſubtile Matter inſinuates it ſelf in a large quantity to fill the Pores, and ſo it rarifies the ſaid Bodies; as more Men, for inſtance, can be contained in a Room, when they are quiet and lie ſtill, than when they move diſorderly; this is every where ſeen in humid Bodies,

as

as Wine that is quiet all the Winter, will Ferment ſo much in the Spring, as to break the Veſſel if there be no Vent, the ſubtile Matter being put into a motion by the approach of the Sun. But all Rarefaction of a Liquor is not properly Fermentation, but only that which is from an inteſtine Principle, or an Heterogeneity of Parts, and a diverſity of the Pores, by reaſon whereof the paſſage for the ſubtile Matter is rendered more difficult, and conſequently there is no Fermentation in Water, or in another Liquor more homogeneous, rarifying over a Fire; for it boils up only by being forced by a great quantity of ſubtile Matter from abroad, and not from any internal Cauſe.

The Natural Heat, or ſubtile Matter, reſides in the Ventricles of the Heart, eſpecially in the Left, and rarifies the Blood as it paſſes by. It is kept up by a ſubtile Matter, which is continually brought to the Heart, from the Nouriſhment, Chyle, and Blood.

We are hotter in Summer than in Winter; for our Pulſe are then quicker and ſtronger; our Thirſt is greater, and we then more deſire Cold Things, and Digeſt them without offence, and are injured by Hot Things, and are prone to Fevers; and we perceive no ſhaking or ſhivering after Meals, as in the Winter. We are Colder in the Winter, becauſe a ſerous Humour abounds then in the Blood, by reaſon Tranſpiration is leſs, and the Fire of the Heart is leſſen'd by the Cold Air that is breathed in; but the Digeſtion is beſt in Winter, and we grow fatter then, by reaſon of the moderate Heat; for great Heat diſſolves Fat, and diſſipates the Ferment of the Stomach; and therefore in Fevers, and in Summer, we grow Lean, and have but ſmall Appetites.

Moreover, in Sleep our inner-parts are not hotter than when we are awake, yea they are not ſo hot, as appears by the Pulſe, that are then more languid and

and leſs, and by the paleneſs; and this is agreeable to Reaſon; for the Blood does not then paſs ſo frequently through the Heart, and conſequently does not heat ſo much; and our Sweating a Nights does not contradict what has bin ſaid, for that proceeds chiefly from Vapours retain'd by the Coverings, and condenſed upon the Body.

The Natural Heat is ſometimes ſuddainly raiſed, as by Anger, or Joy, the Animal Spirits on this account flowing oftner into the Fibres of the Heart, move the Blood oftner, and increaſe the Fire of the Heart: This Heat is alſo increaſed by the motion of the Body, and by the uſe of Spices and Wind.

It is deſtroy'd chiefly three ways, *viz.* by ſuffocation, diſſipation, and want of repair; it is ſuffocated by too much Blood; as a ſmall Fire by too much Wood, or by the Viſcoſity of the Blood, or the Coagulation of it by Cold or Poiſon. It is diſſipated by too great Labour, or violent Sweats. It cannot be repair'd when there is want of Meat and Drink, or when the Aliment is weak, or by reaſon of a compreſſion of the Veſſels, or the thickneſs or viſcidity of the Blood. In Old Men the Natural Heat dies, partly becauſe it is oppreſs'd with Serum, and partly becauſe in a long tract of Time it is diſſipated.

CHAP. IV.

Of an Humour.

AN Humour is a liquid Subſtance in the Body of an Animal, bred according to Nature, by Meat and Drink; it is twofold, Nutritious and Excrementitious.

Nutri-

Nutritious Humours, are Humours apt to be turned into our Subſtance. They are innumerable; but the chief of them are theſe four, *viz.* Blood ſtrictly taken, Flegmatick Blood, or Flegm; Choleric Blood, or Choler; Melancholy Blood, or Melancholy.

Blood ſtrictly taken, is the redder and more temperate Portion of the Maſs of Blood; they that have abundance of it are chearful, and comely.

Flegm is the whiter and cruder Portion of the Maſs of Blood, of a Cold and Moiſt Temperament. Thoſe that abound with it, are Slow, Sleepy, Pale and Fat.

Choler is the thinner Portion of the Maſs of Blood, of an hot and dry Temperament: They that have it in abundance, are Angry, Agile, Witty and Lean.

Melancholy is the earthy and groſs Portion of the Maſs of Blood, of a cold and dry Temperament: They that abound with this Humour, are Sad, Fearful, and Black.

Chyle is a liquid Maſs bred in the Stomach and Guts from Meat and Drink; I ſay in the Stomach and Bowels, becauſe ſome Chylification is made in theſe, tho' chiefly in the Stomach; but we ſhall ſpeak more particularly of Chylification among Natural Actions.

The Chyle is expelled from the Stomach partly by the Muſcles that contract the Belly, and partly by the impulſe of the Liver; and partly by the Periſtaltic motion of the annular Fibres of the Stomach, ſucceſſively contracted from the upper Orifice to the lower. The Chyle being thruſt from the Stomach into the Guts, is further elaborated there, by the ferment of the Stomach which it brings with it, and by the Bile and pancreatic Juice, which entring into the Duodenum, and mixt with the Chyle, are fermented together; and together with the Chyle, paſs into the lacteal Veins, which are innumerable ſmall Veſſels,

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ſo very ſmall that they can't be ſeen, unleſs they are full of Chyle; they come out of every part of the Inteſtines and Meſentery. *Caſpar Aſellius* found them out in the year 1622. in diſſecting a live Dog well fed. Preſently after their riſe, they aim at the neareſt part of the Meſentery, whereunto the inteſtine from which they ariſe is knit; then they go the readieſt way to ſuch glandules of the Meſentery as are neareſt to them; but in their paſſage ſometimes, many little Branches meeting, grow into one great Trunk, *viz.* before they inſinuate themſelves into the gland, to which we ſaid they were going; but in their very entrance into the glands, or a little before, this Trunk ſeparates again into new Branches, more, and ſmaller than the other, which are obliterated in the very ſubſtance of the gland: Out of the gland there ſpring again new capillary Veins, which by and by meeting together, make one Trunk again as before; which being carried towards the beginning of the Meſentery, in their march join to themſelves, others of the ſame kind meeting them, and ſo grow larger and larger, and at laſt very many enter into the great or middle gland of the Meſentery, in the ſame manner they entred the ſmaller, and ſome paſs over its Superficies, and by and by they all empty themſelves into the common receptacle of the Chyle, that lies under the ſaid gland. This receptacle is ſeated under the Celiac Artery, and emulgents at the Vertebræ of the Loins, whence there ſprings a Duct, that preſently enters the Diaphragm, with the *Arteria magna*, where it begins to be call'd *Ductus Thoracicus*. This Duct having paſs'd the Midriff, it marches further up under the great Artery, till about the fifth or ſixth Vertebra of the Thorax, where it turns a little aſide from the great Artery to the Left Hand, and ſo below the intercoſtal Arteries and Veins, under the pleura and gland thymus, it aſcends to the

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left ſubclavian Vein, into whoſe lower ſide it opens, juſt there where the left jugular Vein enters into it on the upper ſide, ſo that their Mouths face one another; but it opens not into this Vein with any large Orifice, but by ſix or ſeven little ones, being all covered together in the interior Cavity of the Subclavia, with one broad Valve looking towards the Cava from the Shoulder, whereby here is granted to the Chyle and Lympha a free paſſage out of the *Ductus Chyliferus* into the Subclavia; but their return, or of Blood with them out of the Vein into the Duct is prevented. This Duct ending thus in the ſubclavian Vein, the Chyle that it conveys into it, paſſes with the Blood, returning by the *Cava* into the right Ventricle of the Heart.

The Chyle in the Stomach and Guts keeps in ſome ſort, the Colour of what is eaten: So Cows and Sheep, becauſe they feed on Graſs, have a greeniſh Chyle. The Chyle of a Man is moſt commonly of an Aſh Colour; but in the lacteal Veins, and the Thoraic Duct, 'tis quite White.

An excrementitious Humour, is an Humour that is not fit to be converted into our ſubſtance: 'Tis divided into Natural and Preternatural; the Preternatural belongs to Pathology.

The Natural excrementitious Humour, is that which has not an inimical quality.

Excrementitious Humours are partly generated in the Blood, becauſe our Nouriſhment has ſome Particles which are apt to become Excrementitious, but partly becauſe the Blood loſes much of its ſubtile Parts, by being often rarified in the Heart, and by nouriſhing our Vital Fire; and on this account, many of its Parts are render'd unfit for uſe, and do hurt, unleſs they are eliminated from the Maſs of Blood, for the Flegm ſtops the paſſages: The Earth, or the *Caput mortuum*, coagulates; the Water hinders the in-

inflammability of the Blood; and the Sulphur by aduſtion, becomes bitter and acrid.

Moreover, divers excrementitious Humours are evacuated in divers places; and meerly according to their diverſity, as to magnitude or figure, in this or that emunctory, and in the particles of this or that Humour, without the help of any fictitious Faculty: And this will not ſeem ſtrange to any one, who ſees that meerly by a diverſity of the Pores and Parts, a wholeſom and unwholſome Herb grow near together in the ſame Ground; and one ſort of Juice flows in the Tree, another in the Bark, and another in the Leaves and Fruits.

A Natural excrementitious Humour, is divided into uſeful and unuſeful; a Natural excrementitious Humour is uſeful, when of it ſelf it is ſome way ſerviceable to the Body, as Milk, Seed, Menſtruous Blood, the Mothers Blood, yellow Choler, Melancholy, Serum, the Humour of the Pericardium, the acid Humour of the Stomach, Spittle, Pancreatic Juice, Lympha, and the ſlime of the Guts.

The Natural excrementitious Humour is unuſeful, when of it ſelf it is no way ſerviceable to the Body wherein it is bred; as Urine, Sweat, Tears, Snot, the Blood of a Woman in Labour, the Blood of the Hemorrhoids, and the Wax of the Ears.

Milk is a portion of the Chyle, ſeparated by the glands, into the milky Tubes, for the nouriſhment of the Infant.

The milky Tubes are Veſſels properly belonging to the Breaſts, and they come from their innumerable Glands, and terminate in the Paps with many holes; they are incompaſſed here and there with Nervous Fibres from the ſmall rope of the Arm-pit, that theſe being inflated, they may be contracted to preſs out the Milk.

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The Matter of Milk is Chyle, and not Blood, as many heretofore have thought, and that it was turn'd White in the Breaſts; but it does not ſtay there long enough to be elaborated; and beſide, the Parts are not formed for ſuch an uſe. Moreover, a piece of Succory eaten before, has bin drawn out with it, and alſo the Bran of Bread eaten before: A Purging Medicine taken by the Nurſe, is preſently mixt with the Milk, and Purges the Child; and ſometimes when it does not the Nurſe, Saffron and Burnt Wine, and other things taken by the Nurſe, communicate the taſt and ſmell to the Milk in the ſpace of half an hour, or leſs; and the Nurſe preſently after drinking a large draught, finds a chillneſs and fullneſs in her Breaſts; which could not be if Blood were the Matter of Milk: Beſides, a Woman would conſume away if Blood were the Matter of Milk; conſidering, that a Woman in Health affords daily a Quart of Milk. Moreover, Fat Women have more Milk than Lean, and yet the Lean Women have moſt Blood, and their ſanguiferous Veſſels are larger: But you will ſay, that Blood is ſometimes ſucked out of the Breaſts, and that in Women that give Suck, the Veins of the Breaſts are more Turgid than at other times; and therefore Blood is the Matter of Milk. To the firſt I anſwer, That Blood is not ſucked without Violence; and therefore this does not prove that it is the Matter of Milk. Secondly, The greater diſtenſion of the Veins of the Breaſt prove nothing alſo, becauſe this is to be imputed to the greater motion of the Blood upwards, by reaſon of the compreſſion of the lower Arteries by the Womb.

I ſuppoſe the Thoracic Duct is the paſſage of the Chyle to the Breaſts, from whence ſome ſmall branches are reflected about the Calvicles, towards the Breaſts.

Women

Women with Child have Milk in their Breaſts, and eſpecially in a few days before Delivery, not becauſe the menſtruous Blood regurgitates from the Womb through the Epigaſtric Veſſels to the Breaſts, for theſe do not at all communicate one with another; and Circulation refutes this: Beſides, ſome Virgins have Milk, yea Men and Children; and many Animals which have not the Courſes; but the reaſon is, for that in Women with Child, the Child growing big, the Womb is wonderfully expanded, and ſo the ſanguiferous Veſſels of the lower Belly are preſs'd; and therefore the Blood regurgitates upwards, and thereby its quantity and heat, opens the Pores of the Glands of the Breaſts, and cauſes the lacteal Tubes to expand more; and for the ſame reaſon, the receptacles of the Chyle are more preſſed, and the Chyle is more forceably driven upwards, and ſo opens more the glands and paſſages of the Breaſts, and the lacteal Tubes.

The Milk after Delivery flows more freely; for the Chyle that uſed to be carried to the Womb for the Nouriſhment of the Child, regurgitates upwards, the paſſages of the Womb being ſtopt: Beſides, the Infant ſucks; and how much that conduces to the production of Milk, none will wonder that reads in Hiſtory, that Milk has bin drawn to the Breaſts of Virgins, by continual Suction alone.

The Milk at length ceaſes, either becauſe the Child is wean'd, or becauſe the Nurſe is with Child, and then the Chyle begins to return to the Womb, for nouriſhment of the Fœtus; and continues this courſe till the Womb being more diſtended, towards the end of gravidation, preſſes the Veſſels of the Chyle.

The cauſe that Children newly born, Old Women, and Men, have Milk in their Breaſts, are the largeneſs of the paſſages of the Breaſts, the laxity of the Glands, and the abundance of Chyle.

Seed

Seed is a whitiſh Humour turgid with Spirits, bred in the Stones, and *Proſtatæ*, and further elaborated for Generation in the carrying Veſſels, and the ſmall Seminal Bladders. The Matter of it is Blood carried on both Sides, from the Trunk of the *Aortæ*, in a ſtrait Paſſage by the Arteries to the Stones, and there put off thro the ſmall Glands that are only viſible by a Microſcope upon the tubulous Subſtance of the Stones; this is confirm'd by the artificial Diviſion and Diſperſion of the Arteries in the Stones, and *Proſtatæ*, and by the Straitneſs of them, together with the Wreathing of the correſponding Veins, and the Multitude of Valves, for theſe are ſo framed, that the Blood may paſs quicker to the Stones, than from them, and that the nobler Part of the Blood may the eaſier ſweat throught to the tubulous Subſtance of the Stones from the ſmall Glands and Arteries every where join'd to it, for the making of Seed. Moreover, it appears hence, *viz.* becauſe thoſe that are of a Sanguine Complexion abound moſt with Seed,

But ſome will have the nervous Juice to be the Matter of it, for theſe Reaſons, becauſe they perceive many Nerves in the Teſticles, and that the taking away of a great Quantity of Blood, does not ſo much weaken a Man, as the Loſs of a little Seed, and that after Coition, the Head akes, and that ſuch as are given to Venery, are ſubject to Diſtillations from the Brain on the Spinal Marrow. And laſtly, becauſe the Teſticles are white, not red. To the firſt I anſwer, that the nervous Juice is either Animal Spirit condenſated, or another Humour: But the Nature of a Spirit which hath Particles that quickly fly away, cannot condenſate into a Seminal Humour, and the nervous Juice can be no other Humour, for if it were, it wou'd ſtop the Paſſage of the Nerves. To the ſecond I anſwer, this is manifeſt to Senſe, and they convey a great many Spirits, which ought to be in the Seed, without which

the Blood could not paſs through thoſe innumerable and narrow Tubes which are in the Teſticles, nor be changed into prolific Seed, which ought to be made by the various Motion of the Spirits, and the Particles of it, and the working of them among themſelves. To the third, fourth, and fifth, I anſwer, that it may be eaſily underſtood that this happens only by the Loſs of Animal Spirits; for the Teſticles being emptied, the Nerves proportionably, at leaſt thoſe which are near, are alſo emptied, and then by Reaſon of the greater Facility of the Motion towards them, Spirits flow more abundantly into them, and ſo the other Parts, and alſo the Brain are robb'd, and upon this Account the Fibres are diſordered, and the Brain becoming cold, condenſes the Vapours, and puts them off on the Spine. To the ſixth I anſwer, that all the Parts and the Teſticles alſo are nouriſhed with Blood, and yet all are ſomewhat white.

Seed begins to be generated about Puberty, becauſe the Heat of the Glands of the Teſticles being then greater, opens more the Arteries and ſmall Veſſels, and drives the Blood better through them, and the Nerves are readier to carry Spirits.

The Seed is of an Aſhy Colour in the Tubes of the Teſticles, but whiter in the Head of the *Epydidimidis*, it is made in the Teſticles and *Proſtatæ*, and is conveyed by the carrying Veſſels by a very ſmall and winding Duct to the Seminal Bladders, wherein it is kept, and further elaborated, till by Titillation the Nerves and Fibres about the Sides of them, being much inflated, preſs out the Seed, which is then very turgid with Spirit, into the Urethra, through the Holes of the Gland that ſtops the Seminal Bladders.

The Stones are the Shop of the Seed, and therefore Eunuchs have not Seed, but ſome Titillation they have, by reaſon of a certain Humour that drops from the *Proſtatæ* into the Urethra, but this is not true

Seed.

Seed. And yet Eunuchs may have Seed in the Seminal Veſſels ſufficient for Copulation once or twice, and may impregnate a Woman.

Thoſe which do not indulge themſelves in Venery, and live chaſtely, do not generate much Seed, for the Paſſages are narrowed by degrees, and the Seminal Matter turns back, and nouriſhes and makes fat the Loins and other Parts.

Women have prolifick Seed, if by that you underſtand the Eggs whereof their Teſticles are full, which being made fruitful, and expanded by the Man's Seminal Air, break out of the Cups wherein they are chiefly contain'd, into the Fallopian Tubes, and from thence into the Cavity of the Womb.

That Humour which Women emit in Copulation, is not true Seed, becauſe that is ejected without, about the Clytoris and Orifice of the Privities, and never into the Womb; this is manifeſt in big-bellied Women, the Orifice of whoſe Womb is always cloſe ſhut, and cover'd with a yellow Mucilage. And beſides, many Women conceive, and yet, as they ſay, have not emitted that Humour: Moreover, it has ſeldom the Conſiſtence of Seed, nor is it Spirituous, becauſe Whores copulating often in a Day, are not weakened by the Excretion of it, nor is it elaborated as Seed, for it is not generated in the Organs of it, but in the Glands.

The Furrows of the Womb emit this Humour, or certain Ducts opening into the Sheath from the *Proſtata* or other Glands of the Womb, by Reaſon of Titillation, and the Conſtriction of the Fibres of the Womb, which happens in Coition.

And yet this Humour is profitable, becauſe it perpetually moiſtens the Sheath, and perhaps it conduces to the Elevation of the Man's Seminal Spirit or Air from the Sheath to the Cavity of the Womb, and from thence to the Eggs to make them fruitful.

Menſtruous Blood, is Blood abounding in the Body, which is evacuated by the Womb Monthly.

The chief Cauſe is the abounding of the Blood at a certain Time, Heat and the eaſie Dilatation of the Womb alſo help. That a Plenitude is the Cauſe may be proved, for that they that have moſt Blood, evacuate moſt this way, and then ruſtic Women, that conſume much Blood by Labour, have little or no menſtruous Flux, and thoſe who have loſt much Blood by Venefaction, have few or no Courſes at all: Men alſo who do not abound with Blood, by Reaſon of Labour and more Heat, have no ſuch Flux. But there are ſome Women who Monthly evacuate Blood by the Noſtrils, Hemorrhoids, or other Parts. Thoſe Women that are hot have the Courſes ſooner, but in a leſs Quantity, and not ſo long as thoſe that are cold.

Some ſay the Cauſe of the Courſes is a certain Saline Ferment of the Womb, being gradually depoſited on the Subſtance of it, whereby the Womb collecting much Fire in it ſelf, is turgid, rarefied, and dilated, grows hot, and evacuates the more fluid Blood, until that Ferment is carried off, and this Ferment they ſay is manifeſt from thoſe things which move the Courſes, for they conſiſt of much volatile Salt.

According to theſe Cauſes the Courſes begin to flow about the fourteenth Year, becauſe the Body then having in a manner its due Magnitude, the Blood begins to abound, and to be luxuriant in the Womb and other Parts, and hence the Breaſts grow big, the Womb is leſs wrinkled, and does not preſs its Arteries ſo much, and a greater Heat exagitates the Blood more violently, dilates the Arteries, and opens them.

The Courſes ordinarily ſtop about the fiftieth Year, partly by the Defect of Blood and Heat, and partly upon the Account of the Narrowneſs and Drineſs of its Paſſages.

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The menſtruous Blood is brought firſt to the Sheath of the Womb, and not to the Bottom of it, for it ſometimes flows in Women with Child, and if it ſhou'd drop from the Bottom, it wou'd putrifie, and injure the Child and its Nouriſhment, and ſo occaſion Abortion.

The menſtruous Blood does not ſtagnate in the Veſſels of the Womb, but circulates as the other Bood does, for otherwiſe it wou'd become venomous, but it is thinner and hotter than the other Blood, and therefore being taken inwardly it forces the Courſes.

About the Time of the coming of the Courſes, Pain and Tenſion and Heat are felt about the Spine and Hypogaſter, becauſe the Blood can't at firſt break through the Arteries. This menſtruous Blood is Arterial, for only Arteries lead to the Womb; when it can't be expell'd by the Womb, it is ſometimes ejected by the Lungs, Gums, Noſtrils, or the like. It ſeldom flows in a Woman with Child, becauſe it does not abound in them, partly becauſe it is ſpent for the Increaſe of the Womb, and partly becauſe Part of the Mothers Chyle goes to the Child.

Yellow or natural excrementitious Choler is a yellow and bitter Humour, ſecreted from the Maſs of Blood into the Gaul Bladder, or *Porus Bilarius*, it is ſeparated by the Impulſe of the Blood of the *Vena porta*, into the Glands of the Liver, which it paſſes through, by reaſon of the ſpecial Conformity of them, with its Particles, as to Magnitude and Figure, and it enters the Branches of the Gaul Bladder, and of the *Porus bilarius*, diſperſed among the Branches of the *Vena porta*, which abſorb the Choler from the Extremities and Pores of the ſaid Gland. But Choler may come partly to the Gaul Bladder by the cyſtick Arteries, being ſtrain'd through the ſmall Glands placed betwixt the Tunics of the Bladder. From the Gaul

Bladder and *Porus Bilarius*, 'tis driven by a Conſtriction of the Fibres, into the *Ductus Cholidochus*, inſerted obliquely into the *Duodenum*.

The Choler which comes from the *Porus bilarius*, is thicker, more feculent, and paler, than that which is in the Gaul Bladder, and the Choler in the Gaul Bladder; by reaſon of its Thinneſs, ſweats through, and tinctures the neighbouring Parts.

Particles of the Chyle and Blood that are Salinoſulphureous, are the Matter of the Choler, being nearly joyn'd with the *Serum*, and by the further Coction in the Heart render'd acrid, and turn'd to Choler; which, by reaſon of their ſmall Quantity, are not bitter, till they are ſeparated, and for this reaſon fat things increaſe Choler, and ſuch as are hotteſt are moſt choleric.

The Uſe of it, according to the Opinion of ſome, is to dilute the Chyle, as well in the Inteſtines, that it may the eaſier paſs the Mouths of the lacteal Veins, as in the thoracic Duct, and they ſay, that the thinner and ſweeter Part of it accompanies and heats the Chyle, leſt coming too cold to the Heart, it ſhou'd ſtop the Rarefaction in it: And they ſay, that the groſſer Part of it is evacuated with the Excrements, which it tinges and dilutes, but it may be well doubted whether Choler can accompany the Chyle in the Thoracic Duct, and whether all of it ſhou'd not rather be expell'd with the Excrements by Stool, for the Chyle in the thoracic Duct, and in the other lacteal Veſſels is ſweet like Milk: And on the contrary, a great Quantity of Milk will grow bitter with a few Drops of Choler, yet it is certain that Choler does continually drop from the *Ductus Cholidochus* into the *Duodenum*.

But it is ſuppoſed that the chief Uſe of Choler, is to ferment the Chyle that paſſes from the Stomach, the pancreatic Juice being mixt with it in the *Duodenum*, that

that the Diſſolution of the Chyle, which was imperfect in the Stomach, may be perfected in the Inteſtines; and it appears to Sight, that Choler dropt upon Dough, ferments it: Moreover, it melts and cleanſes Crudities from the Guts, it heats them when they are chill'd by things taken in, it drives away Putrefaction from this Sink of the Body, and kills Worms, and expells them; and is alſo the Cauſe of the periſtaltic Motion, whereby the Chyle is moved through the Inteſtines, and the Excrements are evacuated, as it continually irritates and provokes the Spirits from the Brain to the Fibres of the Guts, as we ſee in divers other Caſes, for the Inteſtines, Heart, Veins, Arteries, Urinary Bladder, Stomach, Gaul Bladder, the Membranes of the Brain, and the like, have a certain proper Perception, whereby their Fibres are ſucceſſively ſtimulated to contract and dilate, and ſo we ſee the Guts of an Animal diſſected, and yet warm, creep within themſelves; and the Heart cut up, beats; and the Muſcles of a dead Beaſt, touched with an acrid and pungent Liquor, contract.

Natural excrementitious Melancholy, is that Part of the Humours that is ſo terreſtrial, that it cannot nouriſh; it is commonly defined, a black and acid Humour, ſeparated from the Blood in the Spleen, proper to contract the Stomach, and to excite Appetite; but there is no ſuch black acid Humour in the Stomach, nor in the Spleen; and perhaps the Capillary Arteries can't admit of ſo groſs an Humour; the Spleen of a living Dog has been cut out, and yet his Appetite has not been leſſened, and he has grown fat: Moreover, the Spleen ſends nothing to the Stomach, for this ought to be done by the ſhort veiny Veſſel, which is a Vein, *viz.* of the Spleen Vein; but the Valves hinder, as appears by Inflation; and it is repugnant to Circulation, for no Vein brings to any Part, except the *Vena Porta*, and the Vein of the Lungs.

The Serum is the moſt watry Humour of the Blood, when it is ſeparated, it has other Particles mixt with it, as ſaline, acid, and others, according to the Diverſity whereof, it is called *Lympha*, Spittle, or is otherwiſe named; and ſo it is never pure. It ſerves as a Vehicle for the Blood and other Humours, to nouriſh the innermoſt Parts, by entring, expanding, and looſening the Pores. There is great Quantity of this Humour in the Body, by reaſon of the great Quantity of Liquids that we dayly take in.

The Humour of the *Pericardium*, is a ſerous Humour contain'd in the *Pericardium*, the Matter of it is *Serum*, mixt ſometimes with a little thin Blood that it brings with it, and is therefore ſomewhat like the Water, wherein Fleſh has been waſhed, and ſometimes it is like a Gelly, ſome nutritious Particles being mixt with it: From whence this Humour comes is diſputed; ſome ſay it is a Vapour, which exhales from the Heart, and is cooled and condenſed in the *Pericardium*. Some will have it come from the Glands of the *Thymus* that hang from the Throat to the *Pericardium*, but it comes both Ways, but eſpecially by the Lymphatick Veſſels; it does not come only from the *Thymus*, becauſe the *Thymus* in Infants is proportionably the greateſt, and in Progreſs of Years, is ſo leſſened, that at the Time of Virility, and in the following Ages you can ſcarce find any thing beſides Veſſels and Nerves: The Uſe of this Humour is to cool and moiſten the Heart, that it ſhou'd not be dry'd up by its continual Motion, it cools the Heart, as Water contain'd in a Pot does the Bottom of it, *viz.* by taking from it the Particles of Fire which eaſily paſs through the ſtrait Pores of it.

As the Humour of the *Pericardium* is always renewed, ſo in like manner it is evaporated from the *Pericardium*, and is received into the Lungs, or Veins of the Throat, or *Thymus*.

Spittle

Spittle is a ſerous Humour, that drops from the ſalivary Ducts, theſe Ducts are Veſſels of their Kind, four of them are moſt noted, the two uppermoſt that take their Origine with various Branches from the parotid Glands, and at the Jaws run under the Skin with a manifeſt Orifice into the Mouth. The lowermoſt alſo proceed with divers Branches from maxillary Glands, whereof one that is greater, before it reaches the common Trunk, is carried under the digaſtric Muſcle of the Jaws. The lower End on both ſides under the Tip of the Tongue, near the Fore-Teeth, where are ſome Teats placed. The Matter of the Spittle is carried to theſe Glands by the Arteries: It diſtils, moreover, in all the Mouth, as from the Glands under the Tongue, and from the Almonds which have two clear Bladders placed near them, that receive the *Serum*, from the Glands, and pour it out into the Mouth: There is alſo, on both ſides, a common large oval Sinus, that opens into the Mouth, which contains in its Fringe, two greater Sinus's, and ſeveral others, that are leſs, with other Glands, each whereof hath a ſmall perforated Sinus in the Middle.

By moiſtening the Tongue, Mouth, Palate, Oeſophagus, and *Aſpera Arteria*, it quenches Thirſt, helps ſwallowing, and begins Chylification in the Mouth, for it participates of the Nature of the acid Humour of the Stomach; that is, it has ſome ſaline acid Particles incorporated with *Serum*, and therefore a *Bolus* of chewed Bread expoſed to the Sun, turns to Chyle, and Pieces of Fleſh ſticking in the Teeth, grow white, yet Spittle alone is not ſufficient for Chylification: It extracts a Tincture from Meats, and carries it to the Organ of taſting, and therefore without Spittle there wou'd be no Taſt.

The Spittle returns continually, with or without Chyle, to the Heart by the lacteal Veins.

When

When we ſmell or ſee any thing that is pleaſant, or greedily long for any thing, the Spittle waters the Mouth more plentifully, becauſe the Nerves of the wandring Pair, do not only ſend Branches to the Ducts and ſalivary Glands, but alſo ſome to the olfactory and optick Nerves; upon which account a great Influx into theſe, affects alſo the Nerves of the wandring Pair, and ſo by a Contraction of the ſmall Fibres, the Salivary Ducts are narrowed, and the Spittle is ejected.

The rouling about of a Bullet, or the like, in the Mouth, quenches Thirſt, becauſe by moving the Tongue, we narrow the Ducts, and ſo preſs out the Spittle.

Juſt as we are about to vomit, Spittle flows more abundantly from the Mouth, becauſe the Stomach participates with the Maxillary Glands by the Branches of the Nerve of the ſixth Pair, and its inner Tunick is continued to the Jaws and Palate, and ſo they are contracted by Sympathy, and caſt forth their Humidity, and in the ſame manner vomiting is provoked by irritating the Membrane at the Beginning of the Oeſophagus.

The acid or digeſtive Humour of the Stomach, is an acid Humour, that diſtills continually from the Tunics of the Stomach; it may be proved there is ſuch a thing, becauſe 'tis often found in the Stomachs of Dogs that have been diſſected, after they have faſted a while; and ſometimes we belch it up in a Morning, though we are well, and after due Chylification, and the Teeth are often ſet on Edge in vomiting by this mixt with the Meat, and by taking Acids Chylification is further'd, and therefore there is an Acid in the Stomach, which is the Cauſe of Chylification. But you will ſay that I have only proved that there is an acid Juice in the Stomach, and not that it is natural; it may proceed from Chylification vitiated, as we often

often ſee it happens in a Morning after Surfeiting. Moreover, an Acid is the Cauſe of Obſtructions and Coagulations in the Body, and it irritates the Nerves, and the like: And conſequently 'tis not naturally in the Stomach. I anſwer, 'tis certain that ſome acid Humour muſt be generated in the Stomach, becauſe there is ſcarce any Aliment that does not contain ſome Acid, and therefore the Generation of it is natural, though ſometimes this Juice is too acid, or there is too great a Quantity of it, and then it much injures the Body: So Choler, though it be natural, if it be too much heighten'd, or abound too much, occaſions Diſeaſes.

And 'tis probable that ſuch a Juice ſweats continually into the Inteſtines through their glandulous Tunic.

The Matter of it is a ſerous Humour, mixt with acid Particles, but it is not natural excrementitious Melancholy, as was wont to be ſaid; for it is thicker than that. Thoſe acid Particles are made by the like in Aliments taken in, and therefore Acids eaten increaſe the Acid of the Stomach.

The pancreatic Juice is a ſerous Humour that is poured out of the Pancreas into the Inteſtine.

The Pancreas is a certain Body of many Glands, cover'd with a common membrane of Veſſels and Nerves, the branches of them being faſtened among themſelves; it is tranſverſly placed under the Stomach: One of the extremities of it is extended to the Spleen, the other is bound to the *inteſtinum duodenum*, and deſcends a little with it. The Pancreas has an excretory Veſſel proper to it, conſiſting of many Branches, each whereof has annext to it, the Glands of the Pancreas; yea, it does in ſome ſort receive them: It is commonly call'd the pancreatic Duct, and it is wont to be inſerted in the ſame mouth with the *ductus cholidochus*, obliquely into the *inteſtinum duodenum*, or the beginning of the *Jejunum*.

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The Blood being carried by the Arteries, and forced upon the Glands of the Pancreas, conveys the pancreatic Juice through the pores of them into the branches of the Duct; and from these branches it distills into the greater Duct, and thence into the Intestine, in a small quantity; for it can scarce be seen, when the Duct is bound in a living Dog. It has a sub-acid Taste, by reason its acid saline Particles are diluted with Serum; and when the Choler is poured on it, it occasions a Fermentation. The use of it is to ferment the Chyle with the Choler in the Intestine: Moreover, it attemperates the Choler, that it should not hurt the Intestine; and it dilutes the Chyle.

Lympha is a lympid serous Humour, contain'd in the Lymphatic Vessels. These Lymphatic Vessels are very small and pellucid, and they arise almost from every part of the Body, and absorb the Liquor of them; and that they may pass the safer, they here and there encircle the greater Vessels (as may be seen in the Limbs and *Vena Portæ* near the Liver) like Ivy.

As far as we can learn by the Constitution of the Valves, and by Ligature and Inflation, the Lymphatic Vessels that are below the Diaphragm, chiefly end in the common receptacle of the Chyle, the rest above the Diaphragm, are inserted at the concourse of the Jugular with the Axillary, into the upper part of the thoracic Duct, and Pericardium; and there they discharge their Lympha by manifest passages, defended with a Valve; here and there they cannot be seen, because on the account of Tenuity, the parts under appear through those Vessels, and we can't easily distinguish them, especially if the parts are white; but sometimes the Lympha is a little red or yellowish, and then they appear the better, and also after the Death of a Creature; for then the Vessels are more distended, by reason the motion of the Lympha is slow.

The

The uſe of the Lympha is to dilute the Chyle in the Receptacle, that it may the eaſier aſcend through the thoracic Duct; and in the Jugular Vein, it renders the venous Blood that is deprived of its own Serum more fluxile, that it may the eaſier rarifie in the Heart; and it reſtores the humour of the Pericardium.

The ſlime of the Guts is a viſcid and glutinous Matter that covers the Guts within; the Stomach has ſome of it, but it is moſt in the Guts. The Matter of it is a phlegmatic Humour, carried by the Arteries to the glandulous Tunick of the Inteſtines; and being ſeparated through it from the Blood, ſweats into the Cavity of the Inteſtines.

The uſe of this Slime is to defend the Nervous Tunic againſt the acrimony and roughneſs of the Choler, and of things taken in; and probably becauſe it partakes of Acidity it conduces to Chylification.

When Choler, or a purging Medicine is very Acrid, the Slime is melted or rubb'd off, to the great prejudice of the Patient; for Gripes and the bloody Flux are occaſion'd thereby.

Sweat is a ſerous Humour breaking through the ſudorific Veſſels of the Skin, in form of Water. Theſe Veſſels are ſmall Tubes in the Pores running out to the Cuticle, and each of them has a Gland under, through which the Serum, the Matter of Sweat is ſeparated, they may be ſeen with a Microſcope.

Sweat by reaſon of ſalt Particles mixt with it, is Salt. The efficient cauſe of natural Sweat is Heat, *viz.* Of the Sun, of the Fire, Exerciſe, Coverings, and the like, whereby the Blood is more agitated and diffuſed through the habit of the Body; and the mouths of the Arteries near the Skin are more opened, and the ſerous Particles that are more flexile, and that ſtick leſs to others, run out of them; and if there be any Humidity in the Skin, they carry it off with them through the

the Pores of the Skin; but becauſe they do not paſs free enough, and quick enough, many of their particles being heapt together, are condenſed into drops, for otherwiſe they would paſs by inſenſible Tranſpiration, as always ſome thin part does in Sweating. From what has bin ſaid, it appears that plenty of Serum, and a moderate apertion of the Pores, conduce much to Sweat; but that too great an apertion of the Pores, becauſe it does not at all hinder the Flux of the Serum, conduces moſt to inſenſible Tranſpiration, and too great a Conſtriction of the Pores hinders Sweating; but when 'tis once begun, it much increaſes it: And hence Sweat occaſion'd in Winter by Exerciſe, is much more than in Summer.

We Sweat more ſometimes after cleanſing the Face, becauſe the Pores are freed from the Sweat that obſtructs them. Sweat is ſuppreſſed by ſitting near the Fire, becauſe the Pores are thereby enlarged, and the Vapours fly away inſenſibly; and this is alſo the reaſon why Sweat ſooner goes off when we ſit ſtill in the Sun, than under the Shade of a Tree; and alſo why he Sweats more that runs in the Shade, than he that runs in the Sun.

We Sweat moſt in the Arm-pits and Groins, becauſe thoſe parts being moſt cover'd, the Vapours are more retain'd. We Sweat when we Sleep, becauſe then we are either oppreſſed with Clothes, or at leaſt, cover'd with them all over; and becauſe the animal Spirits in Sleep do not ſufficiently flow to the outer Parts and Muſcles, and ſo the Vapours ſtay about the Skin, or by reaſon of the covering do not ſufficiently fly away.

Smiths and Ruſtic People ſeldom Sweat, becauſe by their Filth the Pores are ſhut. Our Hands and Feet Sweat moſt, becauſe in them the Arteries are carried ſtraiter to the Skin, and their Mouths are more open there, that the Blood may return to the Veins, and

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on this account the Serum is put off there more plentifully. It has bin obſerved, that a perſon Drinking plentifully of *Spaniſh* Wine, has render'd his Sweat like it; but this proceeded from too great a quantity, whereby the heat of the Heart being almoſt ſuffocated, cou'd ſcarce change it.

Our bleſſed Saviour in the Garden Sweat Blood, partly out of Love to us, and his moſt holy Father; his Blood did ſo Ferment that it could not be contain'd in the Arteries, and partly by reaſon of Sorrow unto Death, there was ſo great Horrour and Colliſion of the Parts, that Blood was violently preſs'd out of the Pores.

But ordinarily Blood does not Sweat out of the Pores, becauſe it is too ramous; but yet ſometimes naturally, ſome ſmall particles of Blood do accompany Sweat, and then the Sweat diſcolours the Linen, eſpecially in the Arm-pits.

Urine is a ſerous Humour ſtrain'd in the Reins, which comes with the Blood (which it diluted) to the Reins by the Arteries of the Kidnies, but is ſeparated from it as ſuperfluous, and that continually, as part of the Blood is continually driven to the Reins to nouriſh them. It is ſtrein'd in the Reins in the following manner; the Blood mixt with the Serum forces upon the glandulous ſubſtance of the Reins, and by this impulſe, preſently ſome thin particles are ſeparated through the Pores of it into many ſmall Tubes, whereof chiefly conſiſts the inner ſubſtance of the Reins; and from theſe ending for the moſt part in eight or nine papillary Caruncles, they paſs into the Pelvis, and thence into the Ureters and Bladder; the reſt which came to the Reins, returns partly to the *Vena Cava* by the emulgent Veins, and dilutes, and carries the Blood as before.

Beſides, the Serum of the Blood Choler is mixt with the Urine, and tinctures it of a yellowiſh Colour, and alſo

alſo other particles from the Maſs of Blood: For inſtance, ſome nutritive particles of Blood rubb'd off or melted, Sulphureous, Saline, fixed, incorporated with terreſtrial Particles, and the like, which by waſhing the parts it carries off.

Some ſay, that part of the potulent Matter, or of another Liquor taken in, is the Matter of Urine; and they ſay, it does not come by the Arteries, but by ſome nearer way; For inſtance, preſently from the Stomach or Bowels, by ſome ſpecial Ducts running to the Ureters or Bladder, and they rely on theſe reaſons, *viz.* We preſently make Water after drinking, eſpecially of the Spaw-Waters, and the Urine has ſometimes the colour and taſt of what we take in, Theſe Reaſons indeed are probable, but they do not prove the thing for which they are uſed; for firſt, ſuch paſſages have not hitherto been found out by Anatomiſts; and the making of Water ſo ſoon after Drinking, may be underſtood without the ſuppoſition of ſuch paſſages; and in this manner, becauſe a potulent Liquor drank plentifully, preſently increaſes the flux of the Serum to the Reins, partly becauſe flowing preſently from the Stomach to the Inteſtines, and from thence to the lacteal Veins, it thruſts forwards the Chyle, previouſly exiſting as well in them as in the thoracic Duct, and ſo the Serum is increaſed in the Maſs of Blood; partly becauſe large Drinking diſtends the Stomach and Bowels, and ſo preſſes the ſanguiferous Veſſels of the Bowels, and ſo the Blood, with its Serum, abounds in other Veſſels; and therefore to make free paſſage for it ſelf, it puts off its Serum, which by reaſon of its tenuity, eaſily paſſes the Reins; and indeed, though the Drink muſt paſs before it be evacuated through the Stomach, Guts, lacteal Veins, thoracic Duct, and other parts, that it may come with the Blood to the Reins, yet it may be eaſily underſtood how it comes to paſs, that we make

Water

Water ſo ſoon after Drinking. For firſt, that which we void by Urine preſently after Drinking, is not the Drink; for if it were, it wou'd retain the Smell and Taſt, eſpecially when ſome odoriferous and tincturing thing is taken in; and it wou'd appear crude and unconcocted, as that we evacuate by Urine the ſecond or third time after Drinking. But that which was before in the Thoracic Duct, or in the Veins or Arteries is thruſt forward by it: And then the potulent Matter runs its Courſe ſoon enough; and 'tis very probable that the Blood in any healthy Man, finiſhes its Courſe in a Quarter of an Hours time, ſo that 'tis no ſuch ſtrange thing that we make Water ſo ſoon after Drinking, yet 'tis not ſo very ſoon as is ſaid, unleſs the Bladder were diſtended with Urine before. As to the Smell and Colour, which ſometimes the Urine has from things that are taken in, as we ſee when Aſparagus or Madder are eat, theſe are not alſo ſufficient Proofs for particular Paſſages, for this may be becauſe things taken in do not continue long enough in the Blood, ſo as to wholly put off their Qualities in it; and this is ſo much the more, by how much the ſaid things that are odoriferous, and that give a Tincture, are more aperitive: Moreover, ſome Hiſtorians relate, that a Perſon, after drinking a large Quantity of *Spaniſh* Wine, has ſweat it out in Colour and Taſt as before, and therefore it may be as reaſonably expected that we ſhou'd ſhew particular Paſſages in this Caſe, as for the Urine, when it has the Qualities of the Liquor taken in, and yet there are hitherto no ſuch Paſſages found out for the Sweat.

But I wou'd not be ſo underſtood, as that I wou'd wholly reject particular Paſſages, for that there are ſuch is very plauſible, and I hope they will be found out at one time or another, by the Induſtry of the modern Anatomiſts.

The Urine falling continually from the Reins through the Ureters to the Bladder, is retain'd in it, until by the Quantity or Quality, it ſtimulates to Excretion. It is evacuated by a Contraction of the Muſcles of the Belly, and of the Fibres of the Bladder, whilſt they being irritated, the Spirits flow more plentifully into them; and how great the Contraction of the Bladder is, may be ſeen in the Diſſection of a Beaſt; which, when it is vaſtly expanded, after Evacuation of the Urine, ſinks into a very ſmall Compaſs: Leſt the Urine ſhou'd flow out when we are ſleeping, or involuntarily, a great round Muſcle is placed before the Neck of the Bladder, call'd Sphincter; ſuch an one as is at the End of the right Gut, for retaining the Excrement; and therefore to make Water, we contract the Belly and Bladder ſo much, as to ſomewhat overcome the Action of the Sphincter, which is perpetual Contraction.

The Urine cannot return again from the Bladder to the Ureters, becauſe they are obliquely inſerted within the Membranes of the Bladder, and ſo when it lyes upon them it ſhuts their Paſſages.

In a Calf, and the like, all the time they are in the Womb, the Urine is evacuated through the upper Part of the Bladder, but not ſo in an Humane Fœtus, which either voids it into the Womb, or it is kept in the Bladder all the time the Child is in the Womb.

We make more Water in the Winter than in the Summer, and ſo being placed in cold Water, becauſe by the Stoppage of the Pores inſenſible Tranſpiration is hindred, and the Serum is diverted to the inner Parts.

Tears are a ſerous Humour, flowing from the Eyes of thoſe that weep: The Matter of them is a Vapour; and ſalt Serum, continually brought through the Arteries with the Blood, to the weeping Glands, to lubricate and moiſten the Eye, and through them ſequeſtered

queſtered into the weeping Ducts, which are very numerous in the Eye-lids..

Serum flowing in too great a Quantity to the Eye: Alſo Collyria ſometimes running through the Noſtrils and Palate, through the weeping Gland, placed in the greater Angle of the Eye, that is very ſpongy, and through three or four Holes of the Bone of the Noſe, are taſted in the Mouth; through theſe Holes the Rayes of the Sun enter partly the Noſtils, when looking on the Sun we ſneeze.

Our Eyes water upon the account of a Moat, Aſh, Smoak, Onions, Garlic, and the like; becauſe by reaſon of theſe, Pain being occaſion'd in the Eye, there is a greater Flux of Blood than is uſual, and a proportionable Separation of Serum; or becauſe, by reiterated Contractions of the Belly, then intervening, the Bowels preſs more the Aorta, and the Blood, with its Serum, is more moved upwards, and for the ſame reaſon in other Pains; in Trumpeting, Coughing, ſneezing, drinking, and the like, our Eyes water.

In Sorrow Tears flow, partly becauſe by reaſon of a leſſer Influx of the Spirits, the Pores of the Eye fall down, and the Vapours gather together; partly, becauſe now and then, by reaſon of interluding Love or Joy, without which there is no Sorrow, the Blood being driven generouſly through the Body, puts off its Serum more largely on the weeping Ducts.

Snot is a clammy and viſcid Humour ſticking to the Noſtrils; the Matter of it comes from the internal Arteries of the Noſtrils; or it may be a flegmatic Humour pour'd out of the Arteries upon the Brain, and may paſs from thence through the *Os Cribroſum* into the Noſtrils, and grow thick there by the Cold, or by alternate Expiration and Inſpiration of the Air, whereby its thin Particles are dry'd up; for the Mamillary Proceſſes are hollow to the Ventricles that are

before: And part of it may be alſo a Vapour condenſed in the Noſtrils; but it does not come, as is ſaid, through the Hole of the Bone of the Skull to the Palate, for here are no Paſſages for it, but all the Humour coming from the Ventricles to the *Infundibulum*, and pituitary Gland, is refunded through the Membrane under the Gland that is pervious with many ſmall Holes, into the jugular Veins that are placed on each ſide of the *Cella turcica*.

If we expire, or inſpire ſtrongly, the Mouth being ſhut, the Snot is carried with the Air to the Noſtrils from the Palate; and ſo on the contrary.

The Blood of a Woman in Child-bed, is Blood whereby the Woman is purged in her lying in. Child-bed is the Time from Delivery, to the Purification of the Woman.

The Water of a Woman in Delivery, is that which flows from the Womb at the Time of Delivery: The Matter of it is the Urine, Sweat, and ſuperfluous Chyle of the Child contain'd in the Amnion, it flows out when the Child, by kicking, breaks the Membranes, and ſometimes a long while before the Child is born; but it is better not to break ſo, for by lubricating the Paſſages, it facilitates the Birth.

The hemorrhoidal Blood is a Portion of Blood abounding, which is carried off by the hemorrhoidal Arteries, and it ſerves in Men as the Courſes in Women.

A Spirit is the thinneſt and moſt agile Part of the Body; the Matter of it is the fineſt, that is, the moſt ſulphureous Part of the Blood: That there is ſuch a thing as Spirit, may be proved; becauſe, if you bind or cut off the Nerve of any Part, ſo as that the Spirit can't come to it, the Motion and Senſe of it preſently periſh.

Spirit is commonly divided into animal, vital, and natural; but I ſuppoſe there is but one Spirit; which, be-

becauſe it performs animal Actions, is animal; which moves when it flows into the medullary Part of the Nerve, which ſerves for Motion; it gives Senſe when it flows upon the Membrane which ſerves for Senſe, and it is vital as it performs vital Actions, and natural as it performs natural Actions; and ſo the reſt without any ſpecific Diſtinction. Animal Spirit is generated in the Head only, by Separation from the Blood when it forces thro the Branches of the carotid Arteries, upon the external Subſtance of the Brain and *Cerebellum*, that is more lax than the reſt; preſently the fineſt Particles recede from it into the Pores of the Brain and *Cerebellum*.

The Spirit makes its Excurſions from the Brain three ways: Firſt, By the Command of the Mind. Secondly, 'tis expell'd by the Contraction of the Heart, that forces the Blood upon the Brain and *Cerebellum*; and new Spirits being preſently ſeparated from it, force by the wole Diaſtole of the Brain, and partly by the Syſtole, the animal Spirits previouſly exiſting in the Brain, into the Beginning of the Nerves; and this Motion of the Spirits is moderate and ſlow, and thereby the Tenſion of all the Muſcles is equal; and hence it is manifeſt, why by every Pulſe there is a Concuſſion of the whole Body, tho this may alſo proceed from the Blood continually thruſt into the Arteries. 'Tis manifeſt alſo, why one Arm being cut off, the other grows ſtrong thereupon, and why to one of two antagoniſt Muſcles the other is convulſively drawn, and which way it is drawn, it carries the Part with it: *viz.* becauſe then the ſaid Parts are puffed up and extended with a greater Quantity of Spirits. Thirdly, The Spirit flows from the Brain when any Part is irritated; for then, by the Motion of the ſmall Fibres of the Nerves, the Pores in the Brain are opened; and ſo in Reſpiration, in the Motion of the Heart, in the periſtaltic Motion, and the like; where-

in there is a certain natural Irritation, and ſo it flows when ſome Member being tickled or irritated, is ſometimes otherwiſe drawn, but then the Irritation is preternatural. But by reaſon of ſuch an Apertion of the Pores of the Brain, this Efflux of Spirits is ſuch, that it does not only fall upon the Nerves of the Part irritated, but alſo upon the neighbouring Nerves; and this is the chief Cauſe of Sympathy, which is obſerved in divers Parts; for Inſtance, betwixt the Reins and Stomach, by reaſon whereof, thoſe being irritated, vomiting is occaſion'd; and ſo betwixt the Colon and the Stomach, as when that is affected the Patient vomits.

The Spirits ſerving involuntary Actions, come chiefly from the *Cerebellum*, and the medullary Furrows from the *Cerebellum*, to the Nerves of the wandring Pair, ſhew this; and this is the Reaſon why, in an Apoplexy, the Pulſe and Reſpiration do not quite ceaſe, which is partly performed by thoſe Nerves.

The Spirits, in their natural State, being about to cauſe Motion, are not fired like Gun-powder in the Brain, or exploded thence: For if ſo, Motion cou'd not be reſtrain'd at any Time when we wou'd.

The Spirit conduces ſomewhat to the Nutrition of the Parts, by ſeparating their Fibres, and the Sides of the Pores from one another, and ſo by making way for the Blood.

CHAP. V.

Of Parts in general.

A Part is a Body cohering to the Whole, fitted for the Function and Uſe of it; I do not add, joined by the common Life, as ſome do, that they may ex-

exclude the Hair, Nails, Humours, and Spirits, which are all truly Parts; for as to the Hairs and Nails, they ſhew Life as other Parts do which are nouriſhed, and they grow with all Dimenſions, according as other Parts do, by receiving Nouriſhment inwardly, and by applying it to Parts that are deficient, and not only by placing it at the Root, for the Nails have ſmall Arteries, and the Hairs are hollow, and for the moſt part triangular, as the Microſcope ſhews, and in the *plica polonica* they ſweat out Blood: It matters not that the Hairs grow upon tabid People, and on ſuch as are dead, for in them there is a Diſſolution or Colliquation of the Body, which makes the Hairs grow moſt, by yielding an agreeable Nouriſhment, *viz.* a fat Vapour exhaling from the Body, as appears from the Inflammability, the fat Fume, and Odor of them; alſo from that oyly and clammy Matter that ſticks to the Hairs, if they are not frequently cleans'd. Laſtly, They are profitable; for, by keeping the Pores of the Skin open, they conduce to the Expulſion of a ſooty Excrement, as when a Stick is fixt in the Earth, the Earth about it is dryer. On the Eye-lids, they defend the Eyes, and thoſe on the Head defend it, and the like. The Nails are to ſtrengthen the Fingers, and render them capable to apprehend ſmall things.

But the Humours and Spirits do not grow, do not live, nor increaſe vitally, but only by the Appoſition of new Matter, as Rain-water is increaſed in a Tub, and yet notwithſtanding the Humours are Parts; and indeed, the moſt noble and moſt neceſſary, as well as the watry Humour of the Eye, which almoſt all allow to be a Part, tho it is not nouriſhed and grows.

All the ſolid Parts are of themſelves white, as appears by the waſhing and Maceration of them in Water, whereby they put off the Tincture of the Blood, with which they are all nouriſhed.

First, Parts are divided into fluid and solid; the fluid are the Blood and Spirits, the solid all that are distinct from them.

Secondly, They are divided into organic, and inorganic.

An organic Part is a Part which requires a special Conformation, for performing the Action it is peculiarly design'd, as the Eye, Ear, Nose, and the like.

An inorganic Part is a Part which does not require a special Conformation for performing the Action it is peculiarly designed, as simple Flesh, a Membrane. I say, the Action for which it is peculiarly design'd, because, as to the common Actions, in all the Parts, for instance Nutrition, no determinate Conformation is required.

Thirdly, A Part is divided into Principal and Ministring: The principal Part is that which bestows something on the whole Body, that is absolutely necessary to Life. The ministring Part is that which does not bestow any thing on the whole Body that is absolutely necessary to Life.

The principal Parts (at least among the Solids, for among the Fluids, Blood and Spirits are such) are the Brain, which bestows Spirits on the whole Body, and the Heart, which bestows Blood on the whole Body; for if the Heart should not give Blood, the Brain would presently suffer an Eclipse of all its Actions, and other Parts could not live without this; and if the Brain should not supply the Heart with Spirits, whereby it is successively constringed, Death would soon follow. The other Parts minister, especially those which carry, for instance, the Veins, Arteries, and Nerves: The Stomach, Liver, Lungs, and Stones, are falsly accounted by some, principal Parts, for they do not supply any thing that is absolutely necessary to Life; for we live many Days fasting, or only with nourishing Glysters, and divers know how

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to ſtop their Breath a great while, and the Liver ſupplies no more than other Parts, and the Teſticles, tho they make Life more perfect, yet are not abſolutely neceſſary to Life, as is evident in Eunuchs and Geldings.

Fourthly, A Part is wont to be divided by the Schools, into ſimilar and diſſimilar. A ſimilar is ſuch an one whereof all the Parts appear, at firſt View, of the ſame Subſtance. A diſſimilar is ſuch an one whereof all the Parts do not appear, at firſt View, of the ſame Subſtance. I ſay, at firſt View, becauſe otherwiſe, many that are wont to be reckon'd ſimilar, are not ſuch, for there are very few wherein you ſhall not obſerve a diverſe Subſtance.

A Bone, a Cartilage, a Fibre, a Membrane, the Cuticle, Skin, Hair, Fleſh, a Tendon, a Gland, Fat, a Nerve, an Artery, a Vein, lymphatic Veſſels, the lacteal Veins, and the like, are counted ſimilar Parts.

Fifthly, a Part is divided into ſpermatic, ſanguine, and mixt; a ſpermatic Part is wont to be defined a Part, whoſe Matter is wholly, in its firſt Formation, Seed. A ſanguineous Part is a Part, whoſe Matter is wholly, in its firſt Formation, Blood. A mixt Part is a Part, which is made, in its firſt Formation, of an equal Portion of Blood and Seed. I ſay, in its firſt Formation, becauſe it is certain, that in the adult they chiefly conſiſt of Blood, wherewith they are all nouriſhed.

A Bone, a Cartilage, a Nerve, a Fibre, a Tendon, a Membrane, an Artery, a Vein, the Marrow of the Brain, the Hairs, Nails, and the like, are counted ſpermatic: Alſo the fourfold Fleſh, *viz.* the Fleſh of the Muſcles, which is generated of Blood, lightly concreted, and is red and fibrous: The Fleſh, or Parenchyma of the Viſcera, which is the proper Subſtance of each of them, as of the Reins, Spleen, Liver, and Lungs; the Veſſels whereof it ſtrengthens, and fills up

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their void Spaces, the particular Fleſh of every membranous Part, as that of the Stomach, Inteſtines, Womb, Bladder, and the like. Laſtly, the glandulous Fleſh, which conſtitutes the Glands. The Fleſh is counted mixt, but whether all the Parts of it are ſuch, ſo as that ſome of them are only compounded of Seed, and others only of Blood, and others of equal Parts of both, I much doubt.

Sixthly, A Part is wont to be divided, from its Office, into animal, vital, and natural: An animal Part is a Part that is principally deſign'd for the performing animal Functions, ſuch are the animal Spirit, the Brain, ſpinal Marrow, Nerves, Eye, Ear, Noſe, Tongue, with the Palate, the membranous, and nervous Parts, and the like, which conduce to animal Actions.

A vital Part is a Part principally contrived for vital Functions; ſuch are the Heart and Lungs.

A natural Part is a Part principally contrived for natural Functions; Such are the Stomach, Guts, Liver, Spleen, Pancreas, Genital Parts, and the like.

CHAP. VI.

Of a Faculty in general, and of the Species of it.

A Faculty in general, is an internal Principle that formally produces Actions.

Three more general are commonly allowed, *viz.* The animal Faculty, the vital Faculty, and the natural Faculty; but I allow only two of them, *viz.* the animal Faculty, and the natural, as every Action that is not animal, is truly natural.

An animal Faculty is a Faculty producing animal Actions: This is wont to be ſubdivided, as the animal

mal Action, into the sensitive, appetitive, and motive Faculty; and the sensitive again into external and internal: But all these do not differ really among themselves, and *a parte rei*, are the very Soul, considered as the Efficient of this or that Operation.

The natural Faculty is a Faculty producing natural Actions: It is as various as natural Actions are, and is *a parte rei*, Blood and Spirits, and other Dispositions of the Parts, as to Magnitude, Figure, and the like, as they produce natural Actions.

CHAP. VII.

Of Action in general, and its Species, but especially of the internal and external Senses.

ACtion in general is a certain Operation, which is produced in us, either by the Mind or Body: It is divided into animal and natural. An animal Action is an Action that is produced by the Soul, and is fivefold, *viz.* the Understanding, the Will, Sense, sensitive Appetite, and animal Motion.

Sense is twofold, external and internal. Internal is threefold, *viz.* common Sense, Fancy, and Memory. External is fivefold, *viz.* Sight, Hearing, Tasting, Smelling, and Touching.

All these animal Actions are not really distinguished from the Soul, nor consequently among themselves; for the Understanding is the Soul, as it independently, from the Body, produces certain Thoughts; and the Will is the Soul, as without Dependence on the Body, it exercises those Affections, which we call the Operations of Will; and the Sense is the Soul, as it knows some things by means of a corporeal Organ; and it is internal, if the Organ of it is the Brain, and external

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if any other Part be the Organ: It is Sight, if the Organ of it be the Eye; and Hearing, if the Organ of it be the Ear: It is the common Senſe, as in the Brain, but eſpecially in the middle Part of the *Medulla oblongata*, it perceives whatever moves the Organs of the external Senſes; this is only converſant about things preſent. It is Fancy or Imagination, as it perceives ſenſible Objects at a Time wherein they are not perceived by the external Senſes, and forms Images and Repreſentations of them, otherwiſe called Phantaſms. It is Memory, as by the Footſteps of the Spirits impreſſed upon the Brain, it is determined for Remembrance. Laſtly, The ſenſitive Appetite is the Soul, as upon occaſion of a certain Motion of the animal Spirits in the Brain, it is diſpoſed to have theſe Affections we call Paſſions, for inſtance, Love, Deſire, Hope, Fear, Hatred, and the like: The Action alſo, whereby the Soul moves the Spirits, is really the Soul it ſelf.

CHAP. VIII.

Of animal Motion, and of the Species of natural Action.

ANimal motion is a motion performed by the Will, whereby the animal Spirits which always run about the Brain are in readineſs for an influx, and preſently flow into the beginnings of the Nerves, and there protrude the Spirits previouſly exiſting to the Muſcle, which blow up the Fibres of it, and ſo make it ſhorter and more compact; and ſo the Member into which it is inſerted is moved.

Natural Actions are various: The chief are the motion of the Heart, the Pulſe, the Circulation of the Blood, Reſpiration, Hunger and Thirſt, Chylification, Sanguification,

fication, the periſtaltic Motion, Nutrition, Accretion, and Generation.

The motion of the Heart is Muſcular; for it is conſtringed on every part by the duct of the Fibres, it is leſſened and grows hard in its motion, in the ſame manner other Muſcles do. It is two-fold, *viz.* Dilatation or Diaſtole, in reſpect of which the Heart is meerly paſſive; and Contraction or Syſtole, which is the action of the Heart.

Both the Auricles of the Heart together, as the Ventricles of it, have their Syſtole and Diaſtole; but the Syſtole of them is the Diaſtole of the Ventricles; and ſo on the contrary. The Diaſtole of the Auricles does not ſo much depend on the rarefaction of the Blood, as the quantity of it; for the Blood is forced into them by great Veins. The Diaſtole was before the Syſtole, or otherwiſe there would have been no Syſtole; and it partly depends upon the quantity of the Blood, and partly upon the fermentation and rarefaction of it by ſome ſubtile matter in the Heart, whereby the ſides of the Heart are expanded. The Syſtole of the Heart is made by the influx of the Animal Spirits.

The Pulſe is an alternate dilatation and conſtriction of the Artery, by reaſon of the Bloods being forced into the Arteries. There are at leaſt two Thouſand Pulſes in an hours time, in every healthy Man, as any one may find by numbering them; but they are much altered by the Paſſions of the Mind: They are quick in People that are angry, and in thoſe that are chearful; and when we are labouring and running: They are ſlower in ſuch as are ſorrowful, fearful, and the like. In Children the Pulſe is quick, becauſe the Heart is tender, and ſoon irritated, and their Arteries are eaſily dilated, and their Blood is thin, and ſoon rarifies.

The Circulation of the Blood is a motion whereby the Blood continually flows thro' the Arteries from the Heart, and returns to it again by the Veins. This

Circulation

Circulation of the Blood is ſo obvious, that none needs doubt of it; for in bleeding in the Arm, a Quart of Blood, yea, the whole Maſs may be drawn away, and it cannot be ſuppoſed that ſo much Blood was contained in the Arm. Circulation alſo is manifeſt from the Valves of the Veins, which are ſo diſpoſed as to remit the Blood to the Heart, but not on the contrary.

The manner of Circulation is as follows; the Blood is carried from the *Vena cava*, aſcending and deſcending, to the right Auricle of the Heart, and thence to the right Ventricle of the Heart, and after it has been rarified in this Ventricle, it is conveyed into the Artery of the Lungs, and from thence into the Vein of the Lungs, and the left Auricle of the Heart, and ſo into the left Ventricle of the Heart, and then, after another Rarefaction of it there, it is driven into the Arteria Aorta aſcending, and deſcending, and diſperſed thro' the whole Body; and from thence again it is carried as before, thro' the correſponding Branches of the *Vena cava*, into the right Auricle of the Heart immediately, by Inoſculation of the Branches, and Tranſudation from the Artery, into the adjoyning Vein, or mediately thro the middle Fleſh, betwixt the veiny and arterial Branches, and thro' the Sinus's and their Branches in the Brain, where the Blood is abſorbed from the Carotide and vertebral Arteries; and from theſe it is carried to the Jugulars.

It is manifeſt that the Blood circulates thro' the Fleſh, becauſe, when it is preſſed, it grows white, the Blood then flying away; but when that returns, it looks red as before. Moreover, in bluſhing, the Face looks red, the Blood flying to it. The Blood enters the Fleſh by the fine ſimple and porous Tunics of the capillary Arteries, or thro' the Extremities of them.

In a Fœtus the Blood is otherwiſe circulated; namely, in part, from the *Vena cava*, thro' the *foramen ovale*,

ovale, it paſſes into the Vein of the Lungs, nor does all paſs thro' the right Ventricle of the Heart, but enters from the Artery of the Lungs into the Aorta, a membranaceous Tube being ſtretched from that to this, and ſo it does not paſs again thro' the left Ventricle of the Heart. Another part goes the ordinary way. This other Motion of the Blood is rather in a Fœtus than thoſe that are born; in whom, after ſome Days, the ſaid Paſſages are ſhut.

The End of Circulation is the Nutrition of the Parts, the heating of the Body, and the Generation of the vital and animal Spirits, and to preſerve the Blood from Coagulation.

A certain Time cannot be ſet for the Circulation of the Blood, for it is leſs in hot People than in cold; becauſe in theſe, by reaſon of a quicker Rarefaction of the Blood, the Heart is ſooner irritated to conſtriction, whereby the Blood is driven out. The Time is alſo leſs in ſuch as are in Motion, than in thoſe that are quiet; becauſe in ſuch, by a Contraction of the Muſcles, the Veſſels are, by turns, more ſtraitned, and the Blood flows quicker. *Lower* thinks the Blood circulates in an Hour. The Quickneſs of the Circulation of the Blood appears hence, *viz.* if one of the Carotide Arteries be only cut, all the Blood will flow out in the 12th. Part of an Hour, and if ſo, how ſoon would it run out if the Aorta were cut?

Reſpiration is a Motion, whereby the Air is alternately drawn into the Lungs, and expelled out: It conſiſts of Inſpiration and Expiration. Inſpiration is partly made by the Dilatation of the Breaſt, and partly by the elaſtick Force of the Air, and partly by the Preſſure which it has from the Weight of the incumbent Atmoſphere. The Breaſt is dilated chiefly by the internal and external intercoſtal Muſcles. Expiration is made by the Conſtriction of the Breaſt and Lungs, alſo by the Heat and Rarefaction of the Air in the Lungs.

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Reſpiration is a ſpontaneous Action, becauſe it is perform'd when we know nothing of it, but it is in ſome ſort voluntary, becauſe we can quicken or retard it as we will.

The chief End of Reſpiration is Voice; to perform which there is need of Air: Beſides, by this means ſome fuliginous and aduſt Particles are carried off. Thoſe whoſe Lungs do not move freely, as crooked People, and the like, are ſubject to Conſumptions; becauſe their Lungs not being ſufficiently dilated and contracted, cannot well free themſelves from the fuliginous Vapours of the Blood, and other acrid and groſs Particles, upon which account they are ſubject to Obſtructions, and at length to Corruption.

Divers can continue under Water a notable while without breathing, becauſe they know how to fill themſelves with Air before, and becauſe they are leſs hot; but ſome ſay that they have a way of putting their Hands to their Mouth, and ſo to ſeparate the Air from the Water.

Hyſteric Women are ſaid to live a long while without breathing, yet I ſuppoſe they do breath, tho the Standers-by do not perceive it, or at leaſt, the Air paſſes of its own accord, into their Lungs, and out again, and this perhaps may ſuffice for them.

The Motion of the Brain is the conſtant Motion of it made alternately by the Syſtole and Diaſtole, according to its Subſtance, and Independent from the Meninges.

Hunger is a troubleſome Senſe of Vellication in the Stomach, whereby we are diſpoſed to crave for ſome ſolid thing to take it off. This Vellication proceeds from an Acid in the Stomach.

We are more hungry in the Winter than in the Summer; becauſe then the Ferment of the Stomach is more acrid, and, by reaſon of leſs Tranſpiration, more plentiful.

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That an Acid is the Cauſe of Hunger is proved, becauſe Acids increaſe it, and reſtore it when it is loſt, and thoſe things take it away, which deſtroy or attemperate an Acid; for inſtance, Crabs-eyes, Hartshorn calcined, Pearls, fat things, Spirit of Wine, and the like: If Hunger be continued long, it at length leſſens of its own accord, becauſe the Acid is dried up, or overwhelmed by other Humours drawn from the Stomach.

Some think that Hunger is occaſioned by Suction, whereby the Veins ſuck from the Liver, the Liver from the Guts, the Guts from the Stomach; but this is ſo vain, that it is ſcarce worth refuting, for there is no Suction in the Parts, much leſs ſuch a continual one.

Thirſt is a troubleſome Senſe of Vellication in the Mouth and Jaws, whereby we are diſpoſed to crave for ſome liquid thing to take it off; the Cauſe is Siccity, or a ſalt Humour or Vapour.

We ſometimes put off Thirſt by holding in our Mouths a leaden Bullet, or the like, not becauſe Humidity flows from theſe, but becauſe, by the Motion of them and the Tongue, the ſalivary Ducts are more opened, and the Spittle flows out.

Liquid things take off Thirſt, by moiſtening and diluting the ſaline Particles.

Spirit of Wine quenches the Thirſt of Travellers at the Beginning, by opening the ſalivary Ducts, and by helping the Propulſion of Moiſture, but it afterwards increaſes it.

Chilification is the Converſion of Meat and Drink into Chile; it is chiefly made in the Stomach and Guts, but it begins in the Mouth.

The efficient Cauſe of Chilification is partly Spittle, but eſpecially ſome acid Humour. It is made in the following manner: Hard Meat is firſt chewed by the Teeth, and often turned about in the Mouth by the Motion of the Tongue, and by the Jaws and Lips,

and is moiſtened with Spittle, and then is conveyed to the Stomach, partly by the Weight of it, and partly by the Contraction of the annular Fibres of the Oeſophagus. If the Meat is ſolid, it is ſlowly diſſolved in the Stomach; but if it is liquid, it is ſoon digeſted. The Stomach preſently embraces the Meat on every ſide with its Fibres, and both its Orifices, at leaſt the upper, is ſomewhat contracted, but both of them are ſomewhat ſhut, even when the Stomach is empty, leſt any thing ſhould regurgitate from the Guts to the Mouth, or the indigeſted Meat ſhould fall into the Guts. This Cloſure is made by many carnous and nervous Fibres, wherewith both Orifices are compoſed in the manner of a nervous and carnous Ring, the Meat being included in the Stomach, is impregnated with Spittle, and the acid Humour that ſweats out of the Sides of the Stomach, and ſometime after it is bedewed with the Spittle and an acid Humour, it becomes ſpongy and porous in the Stomach, becauſe now its Parts are fermented by ſubtle Matter; afterwards it appears torn into ſmall Pieces, and at length the whole is reduced to the Conſiſtence of Cream, and then Chylification is finiſhed in the Stomach: But all Meat, and every Part of it does not turn to Chyle in the Stomach altogether: but the ſofter and finer, a little and well chewed is turned to Chyle ſooneſt, *Cæteris paribus*; and therefore that which is eaten firſt may not be firſt digeſted, becauſe it may be groſſer and more viſcid. Things boyled, *Cæteris paribus*, are ſooner digeſted than roſted things, and ſuch things as are not ſmoaked, ſooner than ſuch as are: Milk or Broath is digeſted in the Space of an Hour, and in a great meaſure diſtributed: Bread is pretty ſoon diſſolved, ſo are Pot-herbs and Pulſe; but Fiſh and Fleſh require longer Time: That Meat which is diſſolved, does not ſtay in the Stomach till all be ſo, but that which is firſt diſſolved is firſt conveyed to the lower Orifice, and tranſmitted thro' it.

it. That this is ſo, the opening of many Dogs after eating, makes appear, and we judge that it is ſo in Men; but ſeeing Chylification is ſo various it cannot be limited to a certain Time, for ſome Peoples Stomachs are ſo ſtrong, that the Chyle is perfected in in three, four, or five Hours at moſt; whereas on the contrary, the Stomach of ſome is ſo weak, that eight, ten, or thirteen Hours are required to perfect Chylification: But generally ſpeaking, ſeven Hours are ſufficient: But the certain Sign of Chylification is the craving after more Meat.

A further Chylification and Fermentation are made in the Guts; for firſt, the Chyle carries to the Guts from the Stomach, the digeſtive Humour well mixed with it, and new Spittle, and an acid Humour, continually flow to the Stomach, and ſo a new ferment of it is continually generated, and paſſes from the Stomach to the Chyle expelled; yea, it is probable, that ſome acid Humour continually flows from the Meſeraick Arteries, as in the Stomach, upon all the Guts that are near it.

Digeſtion is better made in the Night when we ſleep than in the Day when we are awake, at leaſt the Aſſumption being equal, and other things alike; for in Sleep, the Blood and Spirits, being not ſo much carried to the external Parts of the Body, the Stomach receives more Acid and Heat, and is the more nearly contracted, and ſo the better embraces the Meat; and conſequently the Supper, which is contrary to Cuſtom now adays, ought to be a fuller Meal than the Dinner; and tho' the Time betwixt Dinner and Supper, is leſs than betwixt the Supper and the next Days Dinner, yet you muſt know, that that which is eaten at a large Dinner, is often not fully digeſted before Supper, and ſo the Stomach has a double Task.

Chylification is alſo better in Winter than in Summer, and therefore we are ſooner hungry in Winter,

we eat more, and grow fat; and this Reaſon confirms, becauſe in Winter the Acid of the Stomach being leſs reſolved, abounds more.

Sanguification is the Converſion of Chyle into Blood; this is done in the whole Body, but eſpecially in the Heart, and in the left Ventricle of it, wherein the Particles of Chyle are much rarified and agitated with the Particles of the Blood.

The Cauſe of Sanguification is our Heat or natural Fire, which remaining after the foregoing Fermentation of the Blood in the Heart, inſinuates it ſelf preſently into the Pores of the other Blood coming into the Heart, mixed with the Chyle, in the Paſſage whereof, when it meets with ſome Particles that diſagree with it, Fermentation ariſes among the Particles of the Chyle, and with the Blood in the Heart and Arteries, whereby they are leſſened by degrees, rendred flexible, and diſpoſed to Redneſs.

That Heat is the Cauſe of Redneſs, and conſequently, the Author of Sanguification, none will deny, who ſees Quinces, that before were white, Beer, and other things, to grow red by boyling, and that ſome chymical Liquors poured upon one another ferment and become red.

But there are ſome, notwithſtanding, will not have Sanguification to be made by any Fermentation in the Heart, denying that the Blood is ſo rarified and agitated in the Heart by a ſubtle Matter, for theſe Reaſons; Firſt, becauſe in this caſe ſo great a Quantity of Blood would fall upon the Ventricles of the Heart, as would endanger the breaking of them. Secondly, Becauſe the Blood does not ſtay a ſufficient Time in the Heart for ſuch a Rarefaction, and if it were put upon a Fire, it would not rarifie ſo ſoon. Thirdly, that the Heart being pricked, the Blood comes out frothy. To the firſt I anſwer, that ſo much Blood does not enter into the Ventricles, as to fill them with its Quantity; for the Auricles, which

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are as it were the Meaſures of the Ventricles, are not ſo great; beſides, the fleſhy Walls of them have their Expanſibility, to which, when they are extended, the Heart is irritated, and preſently contracts, and ſo there is no Danger of a Rupture. To the ſecond I anſwer, that it ought not to continue long, becauſe the Blood is in a manner previouſly endued with ſufficient Heat, as we ſee Milk rarified, being removed from the Fire, ſubſides a little, and being put on again, preſently rarifies more; and the reaſon why Blood does not rarifie ſo ſoon on the Fire as in the Heart, is becauſe the ſubtle Matter, whereby it is very apt to rarifie, is loſt, when the Blood is drawn out. To the third I anſwer, that this may be, becauſe ſo ſoon as it comes out of the Heart, much of the ſubtle Matter flies away; and therefore, upon the whole, we ſuppoſe, that Sanguification is perfected in us by Fermentation.

The periſtaltick Motion of the Guts is a Motion whereby the Stomach and Guts are continually and ſucceſſively ſtraightened from the Beginning to the End, and creep amongſt themſelves like Worms. This is proved by our conſtantly ſeeing it in the Diſſection of living Animals. Perhaps ſome will ſay, that this is a Convulſion and preternatural, but I think this ought not to be ſuſpected, becauſe it alſo appears in a Dog, a very ſmall Apertion of the Belly being only made, which may be done by leſs Pain than will cauſe a Convulſion, eſpecially if the Dog be young. Beſides, thoſe annular and carnous Fibres in the Tunicks of the Inteſtines, that have ſo many Nerves, ſhew the ſame; alſo the Protruſion of the Chyle and Fæces thro' the Guts, which would be otherwiſe very difficult, by reaſon of ſo many Turnings and Windings, and ſo be the Cauſe of Putrefaction, and ſlow Nutrition.

This Motion is made by a ſucceſſive Inflation, and Contraction of the annular Fibres, by the animal Spirits, and alſo by the Retraction of the right Fibres.

Nutrition is the Converſion of the Aliment into the Subſtance of the living Body, whereby the living Body, according to all its integral Parts, keeps proportionably the ſame Quantity; and therefore the Reſtauration ought to be preciſely as much, as the Diminution is.

Nutrition is neceſſary to all Animals, not only in reſpect of the Augmentation of their Parts, while they are little Embryo's, but alſo in reſpect of their Conſervation after, during Life; becauſe their Bodies being in a natural Conſumption, or Exhauſtion, would inevitably be ſoon reſolved into their firſt Elements, unleſs the Providence of Nature had ordained a continual Renovation or Reparation of Parts, by Subſtitution, and Aſſimulation of freſh Matter in the room of thoſe Parcicles diſperſed and conſumed.

The efficient Cauſe of the perpetual Conſumption of our Bodies, ſeems to be what all Philoſophers unanimouſly hold it to be, the vital Heat of the Blood, therein firſt kindled, by the plaſtick Spirit continually renewed by the vital Spirit, and by the Arteries diffuſed to all Parts of the Body, that they may thereby be warmed, cheriſhed, and enlivened. This vital Heat continually glowing within us, and principally in the Ventricles of the Heart, conſiſting in a certain Motion of the various Particles of the Blood, and in ſome Degree, analogous to Fire or Flame, I cannot conceive how it is poſſible for it to ſubſiſt or continue, for ſo much as one Moment of Time, unleſs it be maintained by convenient Fuel, which is thereby unceſſantly fed upon, and by degrees conſumed, for it is of the Nature of all Fire, how gentle, or mild ſoever, to generate and conſerve it ſelf, only by preying upon, and deſtroying the Matter wherein it is generated.

ted. This vital Heat therefore, without Intermiſſion, agitating, diſſolving, and conſuming the minute and moſt eaſily exſoluble Particles of the Body, muſt be the efficient Cauſe of the perpetual Conſumption of our Bodies; ſo that in truth we have one and the ſame Cauſe both of our Life, and of our Death; and to ſpeak more properly, our very Life is nothing but a continual Death, and we live becauſe we die; for we live ſo long, as while this internal veſtal Heat is kept glowing in the Blood, and when it ceaſes to glow, either for want of convenient Suſtenance, or by violent Suffocation, the Life is inſtantly extinguiſhed.

The Matter conſumed, I humbly conceive to be, for the greateſt part, the fluid Parts of the Body, chiefly the Blood and Spirits which are moſt eaſily exſoluble, and ſomewhat, tho' but little of the Subſtance alſo of the ſolid Parts; for Experience teaches, that divers Animals, Bears, Dormice, Swallows, and the like, ſleep the whole Winter, without receiving any Supply of Aliment, and yet have all the ſolid Parts of their Bodies as large and firm, when they awake again in the Spring, as when they firſt betook themſelves to their Dens and Dormitories, and the reaſon hereof ſeems to be this, that their vital Heat being all that time calm and gentle, conſumes their Blood and Spirits but ſlowly, and very little of their ſolid Parts, as a Lamp burns long, when the Oyl that feeds it is much, and the Flame but little and calm. We have Examples alſo of Leucophlegmatic Virgins; who, from a gradual Decay of Appetite, have fallen at length into an abſolute Averſion from all Food, and endured long Abſtinence without either Miracle or Impoſture, and yet notwithſtanding, have not been emaciated in Proportion to the Time of their faſting; whence it is probable, that in our Bodies there is not ſo rapid and profuſe an Expence, or Exhauſtion of the Subſtance of the ſolid Parts, as heretofore many learn-

ed Phyſicians have imagined to be made by the Activity of the vital Heat.

It is difficult, if not impoſſible, to make an accurate Computation of the dayly Expences of this vital Heat; for ſo great is the Difference among Men, in reſpect of Temperament, Diet, Age, Exerciſe, the Seaſon of the Year, and various other Circumſtances, that a definite Calculation cannot be made of this Diſpenſe, no not in thoſe who keep to the ſtricteſt Rules of an aſcetic Life, weighing themſelves and their Meat and Drink, as *Cornaro* is repored to have done dayly. We may indeed conjecture, from the ſtatic Experiments of *Sanctorius*, that the Expence is great, for inſtance, if fourty Pounds of Meat and Drink be ſuppoſed ſufficient to maintain a Man of middle Stature, ſober and of good Health, for ten Days, and about twenty Pounds be aſſigned to the Excrements voided by Stool and Urine in that Time, the other twenty Pounds may be reaſonably aſcribed to inſenſible Tranſpiration, but ſtill this is meer Conjecture.

As to the Reſtauration, the efficient Principle is certainly the very ſame with the generant or formative; becauſe Generation cannot be effected without Augmentation, and Augmentation is Nutrition: And I conceive, that Life conſiſts in, and depends upon a continual Generation of the vital Spirits out of the moſt ſubtle, active, and volatile Parts of the Blood, and that Nutrition conſiſts in Reparation of what is conſumed by Appoſition and Aſſimulation of conſimular and congenerous Matter. The material or conſtituent Principle I take to be a certain mild, ſweet, and balſamic Liquor, analogous to the White of an Egg, and they are miſtaken, who think that the Parts of the Body, being in Subſtance diverſe, the Parts of the Aliment alſo ought to be equally diverſe, as if Nutrition were really nothing but Selection, and ſimular Attraction of convenient Aliment, and that there were not

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required in every ſingle Part, a Concoction, Aſſimulation, Appoſition, and Tranſmutation of one Matter common to all; for firſt, it is a difficult Queſtion, whether there be in Nature any ſuch thing as Attraction or not, and to prove ſimular Attraction is yet more difficult, ſo that the very Foundation of this Opinion is meerly precarious. Moreover, it is evident, that the Aliment common to all the Parts, is ſimular, not heterogeneous, it being the proper Work of the plaſtic Power ſtill remaining in every Animal, as to form all the various Parts out of the ſame homogeneous Matter at firſt, ſo to augment and repair them all during Life, out of like Matter, by transforming that into the Subſtance of every Part, which is indeed potentially all Parts, but actually none, as out of the ſame Rain-Water all ſorts of Plants receive their Nouriſhment.

As to the manner how this homogeneous Matter is by the plaſtic Power accommodated to the Refection of all the various Parts of the Body; moſt probable it is, that this admirable Work is gradually done by Diſtribution, Appoſition, Affixion, or Agglutination, and Aſſimulation, or Tranſmutation; all which Acts muſt be ſucceſſively performed, before the Operation can be compleat; for the *Succus nutritius* being prepared firſt in the Stomach and Guts, and then in other Parts, to that end ordained, muſt be diſtributed, brought home, and apponed to all Parts, that need Refection; then from Contiguity by Appoſition, it muſt be advanced to Continuity by Affiction or Agglutination, and in fine, made of the ſame Subſtance with each Part by Aſſimulation or Tranſmutation, which is the Perfection, or ultimate Term of Nutrition.

Generation is a Production of Nature, whereby one living Creature is formed in the Similitude of another.

Generation is performed in the following manner, the virile Seed is injected into the Sheath of the Womb, and

and from thence is elevated a certain ſeminal Air or Spirit, which flies thro' the inner Mouth of the Womb, to the Bottom of it, and thence to the Fallopian Tubes, and ſo to the Teſticles or *Ovaria* of the Woman. Some think that the moſt ſpirituous Portion of the Seed is imbibed by the Subſtance of the Womb, and ſo conveyed with the Blood, to the *Ovaria*, to fecundate them: But our way is the eaſier and ſhorter, at the ſame time the Woman, by reaſon of Pleaſure and Titulation, is wont to emit a certain ſerous Humour, which may conduce to Conception, tho' it be not Seed, by diluting and rarifying the virile Seed, and by rendring the Separation of the ſeminal Spirit more eaſie, and by elevating it to the *Ovaria*, and ſo the ſeminal Air being raiſed from the virile Seed, that which is groſs remains in the Sheath, is diſſipated and ſlides out; and that we are generated by this ſeminal Air, and not by groſs Seed, may be proved by Superfœtation, or new Conception in thoſe that are with Child; for in ſuch the Mouth of the Womb is cloſe ſhut, ſo that nothing but a Spirit can paſs. Moreover, this may be proved by ſome that generate, tho by reaſon of the Brevity and Debility of the *Penis*, never caſt their Seed into the Bottom of the Womb, which certainly cou'd not be, if the Air alone of it were not ſufficient for Generation; and do we not ſee that a Cock generates without the Ejection of Seed, and meerly, as I may ſay, by touching the Fundament of the Hen with a moiſtened *Penis*, and yet this Place is far diſtant from the *Ovaria* in a Hen; what therefore can conduce to the breeding of Eggs, may conſequent to the Generation of Men? This ſeminal Air therefore being conveyed from the Bottom of the Womb thro' the Fallopian Tubes, into the *Ovaria*, there inſinuates it ſelf into one Egg or more, as they are nearer to its Entrance, or more diſpoſed to receive and nouriſh it; and hence it is, why all the Eggs are not fecundated

cundated at once, and ordinarily but a few; and why not always at the firſt Congreſs. The Eggs are beſt fecundated, when a Woman is neareſt the Time of her Courſes, by reaſon of the greater Poroſity of her Womb and Teſticles, whereby the ſeminal Air is the eaſier received into the Eggs. The Eggs are contained in membranous Cups like Acorns, and indeed very looſly, ſo that they may be expelled out of them by the Breath only. The fecundated Egg being turgid and rarified by the ſeminal Spirit, can no longer contain it ſelf in its Cup, but falls from it of its own accord into the Fallopian Tube, and from thence, by a ſucceſſive Conſtriction of all the Fibres, it is forced into the Bottom of the Womb.

CHAP. IX.

Of things nonnatural in general.

THings nonnatural are things neceſſary for the Preſervation of Health, but hurt it when ill applyed; ſuch are the ambient Air, Meat and Drink, Sleep and Watching, Motion and Reſt, things to be evacuated and retained. Theſe things indifferently do good or Hurt, as they are well or ill applyed: But we muſt underſtand, that what is good for one, may be hurtful for another, according to the Nature and Cuſtom in divers People, whereunto much is to be attributed in the Uſe of nonnatural things; yea, the ſame thing may do good at one time, and hurt at another.

We do not conſider Air here ſimply and by it ſelf, but as it encompaſſes us, that is, as it has various Corpuſcles mixed with it, and as it can affect us with them: But it generally affects our Bodies, either extrinſically, that is, by inſinuating it ſelf into the Pores

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of the Skin, or intrinſically being breathed in; and either way variouſly, as it is by it ſelf diverſe, or by being mixed with other things, ſo if there is much Water mixed with it, it may moiſten us much, and if it be very ſubtle, it may heat us much, and if it be mixed with narcotic things, as in ſome places it is, it may make us drowſy, yea, induce a deadly Sleep: If it be infected with a peſtilential Contagion, or with any other ill thing, it may occaſion the Plague, or ſome other Diſeaſe.

It is diſputed by ſome, whether Air or Aliment affects us moſt; but becauſe the manner of both is diverſe, it cannot be ſo exactly judged of, yet it is certain, we are much affected by both, and indeed more continually by the Air, than Aliment; for we can ſcarce continue a Moment without Air, for unleſs it attemperate the Heat of the Blood, it will be ſoon choaked; but we are more ſenſibly and vehemently affected with Aliment, by reaſon of the Groſſneſs and Denſity of it.

If you ask what Air is moſt proper for the Preſervation of Health, I ſay, a pure and limpid Air, that is ventilated with wholeſome Winds, and free from nafty Exhalations, from Carcaſes, and Sinks, and the like; and ſuch an one I judge proper for any healthy Man: But when any Quality exceeds its contrary, it requires an Air that is exceſſive in the contrary, ſo a hot Air is proper for a Man that is very cold, and cold Air for one that is very hot, and for Diverſity of Ages, Diverſity of Air is proper, for with them the Temperament is changed, and therefore with the virile Age, which is moſt temperate and perfect, a temperate Air beſt agrees.

To the Air are to be reduced Winds, Regions, and Stars, for by theſe the State of the Air is much changed. The Wind is nothing elſe than the Air, togegether with Exhalations and Vapours adhering to it, agitated about the Earth, the Wind is uſeful in moving

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the Air about, and thereby preſerving it from Putrefaction, and it diſſipates Filth that is mixed with the Air. Sailers reckon twenty four Winds, ſome twelve, others 16; but the chief of them are thoſe four which are called Cardinal, namely, the North, which is cold and dry, the South, which is hot and moiſt, the Eaſt, which is hot and dry, the Weſt, which is cold and moiſt. The South Wind is the moſt unwholeſome, becauſe it occaſions a Dullneſs of the Senſes, and burthens all the Actions and Parts. The North is alſo bad, next to that the Weſt, but the beſt of all is the Eaſt, eſpecially breathing in a Morning, for then it is purer, becauſe it breaths from a Place where the Sun is. The Weſt is alſo good, if it blow in the Evening.

A Region is a Part of Earth, where there is a great Difference in the firſt Qualities, by reaſon of a more right or oblique Motion of the Sun-beams. Regions are chiefly five, *viz.* the Æquinoctial placed under the Zodiack, the North lying in a Space betwixt the Circle of *Cancer* and the Arctick Pole, the Meridian in the Space betwixt *Capricorn* and the Antarctick Pole, the Oriental and the Occidental.

CHAP. X.

Of Meat and Drink.

MEat is a ſolid and groſs Aliment, that chiefly takes off Hunger; it is ſaid chiefly, becauſe the thinner Part of it may quench Thirſt, as thick Drink may appeaſe Hunger. How great the Neceſſity of both is, and how eaſily we are hurt by them, every one knows.

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All Aliment is either taken from Plants or Animals, but that nouriſhes leſs than this, becauſe this has a Matter more agreeable to ours; namely, of almoſt the ſame Aliment and Chyle, and more agreeable to our Parts and Pores; and therefore eaſier adheres to them. Minerals do not nouriſh, becauſe they have Parts too much diſagreeable to ours, and cannot adhere to them, by reaſon of their Rigidity; but indeed, Chymiſts ſay, that *aurum potabile* protracts Life; but if this be true, it does it upon another account, and not by nouriſhing; namely, by ſtrengthening the Blood, and diſcuſſing its ſuperfluous Humidity, and by raiſing the languid Heat in old Men.

Some Meat is of good Juice, that is, nouriſhes much; ſome of ill Juice; ſome is eaſily digeſted, ſome more difficultly; and ſome is eaſily corrupted in the Stomach, other not, and of thoſe which are eaſily digeſted, and of thoſe which are not eaſily digeſted, ſome are of good Juice, ſome not: All Meat that ſoon diſſolves, ſoon nouriſhes; but all of it does not nouriſh much, becauſe it may be of an improper Juice; for ſuch things as nouriſh much, ought to participate of Groſneſs and Viſcoſity, which, *Cæteris paribus*, are ſlower diſſolved.

Meat of the beſt Juice, of eaſie Digeſtion, and of the feweſt Excrements, is beſt, and the contrary worſt.

Bread is made of various Corn, but the beſt of good Wheat well fermented before, whereof the fineſt is called White-bread, made of the fineſt Meal, the pureſt, ſofteſt, and lighteſt, and freed from all the Bran, and this is moſt nouriſhing. The next Degree is not free from all the Bran, but only from the groſſer. Houſhold Bread has all the Bran and Flower mixed together confuſedly. There is alſo a ſort of Bread that is courſer, which conſiſts more of Bran than of Flower, and this nouriſhes laeſt. Among all theſe Kinds, the

the Houſhold-bread is the moſt wholeſome; becauſe, by reaſon of the Bran joined with it, it does not obſtruct ſo much, and looſens the Belly, and moderately nouriſhes; but the fineſt, and the next Sort, cauſe Obſtructions by their Viſcidity, the courſeſt nouriſhes leaſt, but more or leſs, according to the Bran: This is moſt uſed by poor People, and ſo is Rye-bread, which is harder, black, and offends the Stomach.

Of the Fleſh of four-footed Beaſts, Veal is the beſt, next to that Mutton and Kid; of Fowl, Chicken, Capons, Pidgeons, Patridges; of Sea Fiſh, Cod-fiſh; of River Fiſh, a Pearch, a Gudgeon, a Pike. Of thoſe things that come from Animals, Eggs and Milk are the beſt; of Fruits, Raiſins and Figs: But theſe that are ſaid to be the beſt and moſt healthful, are not good for every body, nor does any agree with every body; but every one muſt find out what beſt agrees with him: For thoſe that have a good Stomach, or labour much, as Country-men, Soldiers, and Sailers, Beef and Pork is beſt, becauſe they want a ſolid and groſs Blood, which nouriſhes much, and does not ſo ſoon waſt.

Fiſh are ſuſpected by many, but undeſervedly; for they make good Blood of a moderate Conſiſtence, and are eaſily digeſted.

The manner in eating ought to be ſuch, that the groſs ought to be eat firſt; for though I ſuppoſe that there is a Confuſion of all things taken into the Stomach, and that the Order of Aſſumption does not continue long, yet the groſſer being taken firſt, may be ſooner worked upon by the Acid of the Stomach. We ought to eat when we are hungry, and when the Stomach is empty; but ſome are hungry when their Stomachs are full, by reaſon of too great Quantity of the Acid, and in this Caſe the Hunger muſt not be taken off by Meats, becauſe it is not natural.

I cannot ſay in general how often we ought to eat in a Day, for ſuch as are cholerick may eat three or four

four times a Day moderately; ſuch as are phlegmatic may eat once a Day, becauſe they bear Hunger better, and do not conſume ſo much Blood. Such as are melancholy may eat twice or thrice a Day. We ought to eat ſo much at a time as will take off Hunger without burthening the Stomach, or ſo much as the Stomach can concoct without leaving Crudities behind it; the Quantity of the Meat is to be varied according to the Conſtitution, Strength, and Age; ſo one Quantity is proper for Youth, another for Age, another for a weak Man, another for a ſtrong Man, another for a healthy Man, another for a ſick Man, another for a cholerick Man, another for a flegmatic Man, and ſuch a Quantity for one that exerciſes his Body, and leſs for one that exerciſes his Mind: But it is better to eat ſomewhat too much than too little; and therefore it is better to indulge the Appetite ſomewhat, for ſo the Stomach will be accuſtomed to bear ſometimes ſmall Exceſſes, and to concoct ſomething more.

And as the Quantity of Meats ought to be adapted to the Conſtitutions, ſo the Quality ought to be ſo too, according to the Diverſity of Tempers, Age, Time, and Cuſtom; ſo thoſe that are hot and dry ought to uſe cooling and moiſtening Diet, ſo Children require more tender Diet than Youths or Men, and a cooler Diet ought to be uſed in Summer than in Winter. Meats boyled ſooner turn to Chyle than roſted Meat; but roſted Meat nouriſhes more, becauſe it more abounds with nutritive Juice, as may be ſeen by cutting it with a Knife; for the hard Cruſt without keeps in the Gravey, which is diſperſed in the Broath of boyled Meat; therefore roſted Meat is moſt proper for Labourers, and boyled Meat for thoſe that live a ſedentary Life.

Drink is a thin and liquid Aliment, chiefly uſed to quench Thirſt. The chiefeſt kind of Drinks are Water, Wine, and Beer. It is diſputed concerning Water,

ter, whether it nouriſhes; but I ſay it nouriſhes; for it is not a ſimple Element, and many Men live pretty well that drink only Water, and ſeem to be refreſhed by it; and we ſee that Water alone nouriſhes a long while, and that Fiſh increaſe, being kept in Troughs; and ſo Plants and Fruits are nouriſhed by Water. There are many Species of Water, there is Rain-water, Well-water, Fountain-water, Lake-water, Snow-water, and Ice-water. The beſt Water is that which is limpid and Sweet, or rather without any Taſte or Colour, ſo that the Goodneſs of Water is to be judged of by the Abſence of Colour, Taſte, and Smell. Some think that the lighteſt Water is beſt, but this is not to be judged of by the Scale; for often ill Water weighs leſs than good; but the meaning is, it ſits lighter upon the Stomach and Bowels. Fountain-water is the beſt, if it be ſtrained thro' good Earth; next to it Rain-water, which is lighter, thinner, and clearer, but is worſe, by reaſon of diverſe Vapours and Exhalations, which are mixed with it. Well-water is very unwholeſome, becauſe it is counted to ſtagnate, and is not agitated by the Rayes of the Sun, and if the Well be covered, it is much worſe That which is taken out of the midſt of a River is better, if it be clear, and if the Stream be rapid. The Water of a Lake is very ill, by reaſon of the Stagnation. Worſt of all is Ice or Snow-Water; for it is very impure and crude. In ſhort, the beſt is the pure, clear, and ſubtle Water; which being ſet on the Fire, ſoon heats, and taken thence, is ſoon cool. Let the Fountain be ſituate towards the Eaſt, and run to the North. The Water which runs on pure Earth is better than ſuch as runs upon Stones.

It is good for hot, fat, and fleſhy Men, and mixed with Wine for ſuch as uſe much Labour and Exerciſe: And tho' it does not nouriſh much, yet it refreſhes, and is a Vehicle for the Food; it excites Appetite, and